

Part 127—Certification and Operations of Scheduled Air Carriers With Helicopters

This change incorporates Amendment 127-45, Commuter Operations and General Certification and Operations Requirements, in Federal Aviation Regulation Part 127. The amendment removes Part 127 effective January 19, 1996.

The attached preamble for Amendment 127-45 starts on page P-149. It has been included for statutory clarification. See page P-221 (under § 119.25) for the discussion of the removal of Part 127.

FAR PART 127 IS REMOVED

Suggest filing this transmittal at the beginning of the FAR. It will provide a method for determining that all changes have been received as listed in the current edition of AC 00-44, Status of Federal Aviation Regulations, and a check for determining if the FAR contains the proper pages.

to conduct those operations under part 121. The commuter operators affected are those conducting scheduled passenger-carrying operations in airplanes that have passenger-seating configurations of 10 to 30 seats (excluding any crewmember seat) and those conducting scheduled passenger-carrying operations in turbojet airplanes regardless of seating configuration. The rule revises the requirements concerning operating certificates and operations specifications for all part 121, 125, and 135 certificate holders. The rule also requires certain management officials for all certificate holders under parts 121 and 135. The rule is intended to increase safety in scheduled passenger-carrying operations and to clarify, update, and consolidate the certification and operations requirements for persons who transport passengers or property by air for compensation or hire.

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Background

I. Introduction

On March 29, 1995, the Federal Aviation Administration (FAA) published a Notice of Proposed Rulemaking (NPRM) on “Commuter Operations and General Certification and Operations Requirements” (Notice No. 95-5; 60 FR 16230.) In Notice 95-5, the FAA proposed that commuter operations conducted in airplanes with 10-30 passenger seats be conducted under the domestic or flag rules of part 121 of title 14 of the Code of Federal Regulations. Currently, scheduled passenger-carrying operations in airplanes with passenger-seating configurations of over 30 seats or more than 7,500 pounds payload capacity are conducted under part 121. Scheduled passenger-carrying operations in airplanes with passenger-seating configurations of 30 seats or less and 7,500 pounds or less payload capacity are conducted under part 135. Part 121, which provides the safety requirements for all major air carriers (as well as for any certificate holder conducting scheduled or nonscheduled operations with airplanes configured with more than 30 passenger seats), is generally considered to have more restrictive requirements than part 135. The regulatory changes were introduced in order to address the continually changing needs of the industry and to fulfill the agency’s statutory requirement. This is the final rule, based on Notice 95-5.

II. History

Historically, the maximum certificated takeoff weight (MCTW) of an airplane determined both an airplane’s categorization and operating requirements. Beginning in 1953, airplanes with an MCTW of 12,500 pounds or less were defined as “small airplanes” and were permitted to carry fewer than 10 passengers in on-demand air taxi service. The rules under which those operations were conducted were eventually codified as part 135. Airplanes with an MCTW of more than 12,500 pounds were defined as “large airplanes,” and most large airplanes carried 20 or more passengers in scheduled air transportation. The Civil Aeronautics Board (CAB) used the large/small dividing line to separate major airline companies, who were required to obtain a Certificate of Public Convenience and Necessity (CPCN) from the CAB in order to operate in interstate commerce as a common carrier, from on-demand air taxi operators, who were exempted from obtaining a CPCN.

During this time, the CAB issued only a small number of CPCN’s to major, publicly-recognized companies, such as Eastern, American, Delta, Pan Am, TWA, etc. In contrast, on-demand air taxi operators numbered in the thousands. These operators were typically fixed-base, usually at small airports, and owned fewer than five airplanes. They provided on-demand air transportation as well as other services, such

In 1978, as a result of the Airline Deregulation Act, the airline industry was deregulated economically and air carriers were given more freedom to enter and exit markets without prior government economic approval. One of the most significant effects of this deregulation was that it allowed major carriers to eliminate service to smaller communities, where such service proved to be uneconomical for the large aircraft the carriers operated. Major carriers were replaced in those communities by the commuter carriers. Under this "hub and spoke" system, the major part 121 air carriers provided service to the large metropolitan airports, while the growing class of scheduled part 135 air carriers provided service between smaller communities as well as feeder service from the smaller communities to the larger cities to connect with the major carriers' operations. With these changes, the traditional two categories of operations became three categories of operations—scheduled commuter operations, traditional air taxis, and traditional major air carriers.

Also in 1978, in response to the Airline Deregulation Act, the FAA reissued part 135 standards to upgrade commuter and air taxi safety requirements and make them more like part 121. At that time part 135 certificate holders were required to meet more stringent requirements in several areas, including weather reporting, flightcrew training, maintenance, and qualifications for management personnel.

Since 1978, the FAA has issued a number of separate rule changes to further align part 135 safety requirements with those in part 121. Despite this realignment, differences between the regulations still exist. The economic incentive to operate under part 135 still exists because the requirements in part 135 are still less restrictive than the part 121 requirements in many instances.

For the remainder of this document the following terms are used in the following ways. "Commuter," "commuter airline," and "commuter operator" mean those operators conducting scheduled passenger-carrying operations under part 135 in airplanes with a passenger-seating capacity of 30 or fewer seats. This current use of the word "commuter" does not include scheduled passenger-carrying operations conducted under part 121 in airplanes with a seating capacity of 31 to 60 seats. The term "commuter category airplane" used in this document refers to airplanes type certificated in that category under part 23 in contrast to airplanes type certificated under part 25 which are transport category airplanes. The term "nontransport category airplanes" is used for commuter category airplanes and SFAR 41 and predecessor normal category airplanes to be operated under part 121, as well as for some older airplanes certificated before the predecessors of part 25 (parts 04 and 4b of the Civil Air Regulations) came into existence. The Department of Transportation (DOT) uses the term "commuter" more broadly to include all scheduled passenger-carrying operations conducted in airplanes with a passenger-seating capacity of 20 to 60 seats. (NOTE: The High Density Rule, 14 CFR part 93 uses "scheduled commuters" differently. Its meaning under that part is not relevant to its use in this document.) The term "regional," which is used by industry to refer to short-haul, passenger-carrying, scheduled operations conducted under part 121 or part 135, is not generally used by the FAA.

III. The Problem and Related FAA Action

Recent part 135 commuter accidents have focused public, government, and industry attention on the safety of commuter operations. While the safety level of part 135 commuter operations has continued to improve, accident data, public perception, and recent government inquiries show a need for additional measures.

III.A. Accident Rate for Commuter Operations

The airline industry that uses airplanes with a passenger-seating capacity of 60 or fewer seats to conduct scheduled operations under parts 121 and 135 is an essential part of the air transportation network in the U.S. These airlines now fly more than all airlines did in 1958. In 1993, over 50 million passengers, 12 percent of the total passenger flights in the country, were flown by these airlines. Half of these passengers were flown in part 135 operations, i.e., in aircraft with 30 or fewer seats.

Over the past two decades the safety record of part 135 commuters has greatly improved. The accident rate per 100,000 departures in 1993 was one-fourth the accident rate in 1980. However, the accident rate for commuter airlines operating under part 135 continues to be higher than the rate for

With the increase in the number of flights to many communities conducted in airplanes with a seating capacity of 30 seats or less, some members of the public are questioning whether they are receiving an appropriate level of safety in small propeller-driven airplanes compared to the level of safety they receive in larger aircraft. This public concern is partly a result of the integration of commuter carriers with major airlines under an arrangement known as code-sharing. The term "code-sharing" refers to the computerized airline reservation system that lists a commuter flight in the reservation system under the same code used by a major carrier. A passenger who books with a major carrier may have a leg of the flight automatically booked with a smaller commuter affiliate of the major carrier.

With the media attention to recent commuter accidents, the passenger may also believe that the flight involves more risk because the smaller airplane and its operation may not have to meet the same safety standards. Most passengers probably do not realize that some differences in standards are necessary because of differences in the airplane and operation and that some of the accidents that are categorized by the media as "commuter" accidents occurred in flights that were being conducted under part 121; that is, in airplanes with over 30 passenger seats.

The differences in regulations were initially based on differences in the types of operations and differences in the size of airplanes; these differences in many instances still apply. But other differences, such as certain performance and equipment requirements, operational control requirements, and passenger information requirements are not size- or operationally-based. Some differences between the two sets of regulations must be maintained while others can be eliminated to improve the safety of commuter operations.

III.C. Congressional Hearings

On February 9, 1994, Congress held hearings on the adequacy of commuter airline safety regulations. The purpose of the hearings was to determine if FAA safety regulations should be modified to establish a single standard for all scheduled operations regardless of airplane size. Representatives of government, industry, and the public presented testimony. Most testimony supported the upgrading of safety requirements.

III.D. NTSB Study

In November 1994, the National Transportation Safety Board (NTSB) published a study on commuter airline safety. (National Transportation Safety Board Safety Study: Commuter Airline Safety, NTSB/SS-94/02.) The study was based on the NTSB's analysis of accident investigations and previous studies, on a recent site survey of airline operations and policies conducted at a representative sample of commuter airlines, and on information obtained from a public forum on commuter airline safety convened by the NTSB.

In the study, the NTSB found that the commuter air carrier industry has experienced major growth in passenger traffic and changes in its operating characteristics since the NTSB's 1980 study of the commuter airline industry. The NTSB found that there has been a trend in the industry toward operating larger, more sophisticated aircraft, and many carriers have established code-sharing arrangements with major airlines. The NTSB concluded that the regulations contained in 14 CFR part 135 have not kept pace with changes in the industry.

As a result of the findings, the NTSB issued the following safety recommendations to the FAA:

- Revise the Federal Aviation Regulations such that all scheduled passenger service conducted in aircraft with 20 or more passenger seats would be conducted in accordance with the provisions of 14 CFR part 121. (A-94-191)
- Revise the Federal Aviation Regulations such that all scheduled passenger service conducted in aircraft with 10 to 19 passenger seats would be conducted in accordance with 14 CFR part 121, or its functional equivalent, wherever possible. (A-94-192)

FAA published all of the NTSB recommendations in the Federal Register (59 FR 10311, 7, 1994) and received public comments generally supporting the expansion of the operational rules of part 121, except for flight time limitations, to commuter operations under part 135. Some commenters had considerable reservations about applying certain part 121 equipment requirements to smaller airplanes. The FAA considered these comments in developing this rule.

III.E. Related FAA Action

In December 1994, the FAA proposed revisions to the training and qualification requirements of certificate holders conducting commuter operations under part 135. The proposed rule also addressed crew resource management training for pilots, dispatchers, and flight attendants in part 121. (59 FR 64272, December 13, 1994) [Add Final Action]

IV. The Proposed Rule and General Description of Comments

In Notice 95-5, the FAA proposed to require that all scheduled passenger-carrying operations in airplanes with a passenger-seating configuration of 10 or more seats (excluding any crewmember seat) and all scheduled operations in turbojets (regardless of the number of seats) must be conducted under part 121. The proposal would require certificate holders now conducting scheduled passenger-carrying operations under part 135 in airplanes with a passenger-seating configuration (excluding any crewmember seat) of 10 to 30 seats or in turbojets to be recertificated and to conduct the applicable operations in compliance with part 121 requirements. In some instances the proposed rule revised the requirements of part 121 to make compliance with the requirements feasible for operations in smaller, nontransport category airplanes.

In response to Notice 95-5, the FAA has received over 3,000 comments from the public. Of these, most are solely on the issue of the Age 60 Rule. Many of the Age 60 commenters are pilots and other individuals who address the current rule in part 121; very few address the specific Age 60 issue contained in this rulemaking, i.e. the applicability of the Age 60 Rule to pilots of affected commuter airplanes. These comments are summarized in section V.E., The Age 60 Rule.

Approximately 200 comments were received on the substantive issues raised by Notice 95-5. These commenters represent air carriers; manufacturers; associations representing air carriers, manufacturers, pilots, dispatchers, and passengers; State and local governments; the U.S. Small Business Administration; the National Transportation Safety Board; and individuals. While some commenters voice general support for the goals of Notice 95-5, most raise concerns about specific proposals. Industry commenters are particularly concerned about the costs of complying with the proposed rule.

The FAA also conducted three public meetings on the proposed rule: on May 18, 1995, in Anchorage, Alaska; on June 14, 1995, in Chicago, Illinois; and on June 21, 1995, in Las Vegas, Nevada. Testimony from the public meetings and written statements submitted at the meetings have been included in the FAA public docket, have been considered by the FAA in developing the final rule, and are discussed in the following discussion of comments along with all written comments that were submitted to the FAA docket.

In Notice 95-5, the FAA identified major issues that the agency addressed in developing the proposal. These included applicability of the proposal, aircraft certification issues, flight time limits, the Age 60 Rule, use of a dispatch system, certain equipment items, and the compliance schedule. Comments received on these major issues and the FAA's response to these comments are discussed in section V. Comments received on specific proposals and the FAA's response to these comments are discussed in section VI. Comments specifically addressing cost issues are discussed in section VII. Below is a list of some of the major commenters and their associated abbreviations. The full name of each commenter is used when the commenter is first mentioned. In subsequent discussions, the commenter's abbreviation, as shown below, is used.

GAMA General Aviation Manufacturers Association
HAI Helicopter Association International
IAPA International Airline Passengers Association
NACA National Air Carrier Association
NATA National Air Transportation Association
NTSB National Transportation Safety Board
Penair Peninsula Airways
RAA Regional Airlines Association

V. Major Issues

V.A. General Justification

In Notice 95-5, the FAA justified the proposed rule on the basis of the higher accident rate for commuter airlines. Parts of the proposed rule were also supported by the testimony from Congressional hearings on commuter airline safety regulations and by the NTSB study, based on accident investigations and previous studies, which found that part 135 regulations had not kept pace with changes in the industry.

Comments: The NTSB and the Air Line Pilots Association (ALPA) generally support the proposal and its justification. A comment from the International Airline Passengers Association (IAPA) supports the rulemaking justification by stating the findings of a recently completed IAPA study of commuter/regional airplane safety records in the United States covering the period 1970 through March 31, 1994. According to IAPA, during that period carriers using airplanes with 30 or fewer seats had 29 fatal accidents with 249 passenger fatalities; over 30 seat regional carriers had 1 fatal accident with 2 passenger fatalities; major airlines had 11 fatal domestic jet accidents with 527 passenger fatalities.

In contrast to these comments, many other commenters state that the proposed rulemaking lacked sufficient justification. Recent accident data, say these commenters, have shown significant reductions in accident rates for commuters so that the difference in accident rates for part 121 operations and part 135 commuter operations is minimal. According to at least one of these commenters, if the accidents that occurred in extreme environments such as Alaska are removed, the accident rate under the two parts would be either the same or lower for part 135 commuter operations.

According to some commenters, the recent accidents cited in Notice 95-5 were all caused by pilot error and thus would not have been prevented by this rulemaking but could have been prevented by improvements in training.

Some commenters state that the proposed rule is the result of public, media, and agency overreaction to recent commuter accidents and that both the public and the media drew inaccurate conclusions about commuter airline safety from these accidents. According to these commenters, instead of hastily proposing rules based on incomplete information, the agency should have informed the public that many so-called commuter operations are already being conducted under part 121.

Several commenters state that the proposed rule will decrease safety because in order to avoid the proposed restrictions, certificate holders now operating airplanes with a seating capacity of 10 to 19 passenger seats will switch to reciprocating-powered airplanes with a passenger seating capacity of 9 or less in order to continue to operate under part 135. Furthermore, some commenters state that if fares are significantly increased to pay for the more restrictive requirements, passengers may choose ground transportation, which has a much higher accident rate.

Several commenters state that the proposed rule would have a significant economic impact on small airline operators, in some cases forcing them to close their businesses, thus eliminating air transportation to some locations. In addition, according to some commenters, the proposed rule would have a negative impact on competition, particularly in the foreign market because the cost of U.S. manufactured airplanes would increase.

not have prevented the three accidents cited by the FAA in the NPRM. It would be a mistake to assume that the FAA is basing this final rule on just those three accidents. Similarly, it would be a mistake to conclude that the FAA is justifying this rule on merely "perceptions" of a problem. Those accidents were catalysts for the Government to focus on the differences in the part 121 accident rate and the accident rate for 10- to 30-seat part 135 commuters. Over the next 15 years affected commuters are expected to have had 67 more accidents than they would have had if the accident rate for part 135 affected commuters were the same as that for part 121 scheduled operators. The FAA believes that adoption of this rule will significantly close the accident rate gap over time.

The FAA believes that the part 121 regulatory scheme for scheduled operations is more appropriate for the 10- to 30-seat scheduled operations. The added safety features and requirements in part 121 domestic/flag rules, including the dispatcher system, will increase safety for the affected commuters. Because most accidents are caused by human errors, rules such as the part 121 training rules and the dispatcher system rules are some of the most valuable tools in reducing the number of these kinds of accidents. Rules that most directly relate to preventing accidents caused by human errors are being imposed on the affected commuters on a faster schedule than many of the other rules (e.g., aircraft performance and certain equipment retrofits). It can be reasonably anticipated that applying part 121 operating rules, including these two groups of rules, can begin to immediately and significantly reduce the accident rate for affected commuters. For instance, the FAA anticipates that requiring operators to have someone (i.e., a certificated dispatcher) double check the work of the pilot and provide the flight crew with updates on weather and alternate airports can reduce some human factor errors. The FAA believes that if the flight crew is subjected to more stringent flight and duty safeguards (either the current part 121 domestic flight and duty rules or the rules in a soon to be issued NPRM in which the FAA will propose to overhaul all the flight and duty regulations), the dangers of fatigue causing a human factors error will be reduced. Enhanced part 121 training (which is being required of affected commuters in an associated final rule) will also reduce some human factor errors.

It is critically important to impose the bulk of the part 121 regulatory scheme on affected commuters because the absence of any significant portion of that regulatory scheme may lessen the effectiveness of the rest of the safety features in the part 121 regulatory scheme. Even the best trained and well rested pilot is a human being and, therefore, subject to making errors. With a dispatcher system, the chances of pilot miscalculations or oversights could be reduced. Moreover, a dispatcher can assist the flight crew in making enroute plans for an alternate airport (which might be necessary due to weather problems, air traffic control problems, airplane equipment problems, fuel problems, etc.) while the crew focuses on flying the airplane. It is reasonable to conclude that the accident rate for affected commuters can be reduced to a level closer to that of current part 121 domestic operations by eliminating most of the regulatory differences that the two different regulatory schemes allowed.

While major air carriers may require commuter affiliates to follow certain part 121 standards, and in some cases even exceed some part 121 standards, no part 135 commuter operator currently operates under part 121 operations specifications or totally complies with all part 121 standards (e.g., many part 121 requirements are based on the assumption that transport category airplanes are operated). Most importantly, no part 135 commuter is required by current FAA regulation to comply with part 121 requirements.

Recent accidents brought to public attention the differences between part 135 and part 121 and the lack of continuing justification for these differences. As Notice 95-5 pointed out, the distinction between these two types of operations was, in the beginning, an obvious necessity. Major air carriers engaged in public transportation were entirely different from the small on-demand, air taxi operator. But with the development and growth of what has come to be known as commuter service, the line between the two has blurred. Certain segments of the commuter industry have continued to develop commuter category airplanes, holding the line at 19 passenger seats in order to stay within the limits of the less restrictive airworthiness regulations for nontransport category aircraft. This has created the potential for the further development of commuter airplanes specifically designed to stay within the limits of the less restrictive regulations while at the same time becoming as sophisticated or more sophisticated in technology than some transport category airplanes operated by the major carriers. With hindsight,

certificate holders will switch to reciprocating-powered airplanes, the FAA has modified the proposal, especially in regard to the schedule for some airplanes to meet part 121 airplane performance criteria, to allow operators sufficient time to build up capital or credit to make changes to the existing fleet or to purchase new airplanes that meet the higher performance standards. The FAA does not want to move so fast as to force operators to use airplanes that have even higher accident rates (i.e., airplanes with 9 or fewer seats).

The FAA finds that safety and the public interest require extending the proposed compliance dates for imposing part 121 performance criteria requirements and some equipment requirements until it is economically feasible for operators of 10- to 19-seat airplanes to acquire or lease replacement aircraft. The FAA has analyzed the situation and has concluded that many operators of 10-15 seat aircraft would replace those aircraft with 9 or fewer seat aircraft to avoid the sudden imposition of large costs on their current fleets. Without the FAA modifying its proposal with regard to airplane performance requirements, many airplanes would be eliminated from scheduled service at the first compliance date (i.e., 15 months after publication of the final rule) and operators of other airplanes would have to offload passenger seats, thereby causing the economic and safety impacts discussed previously. This modification would be consistent with the National Transportation Safety Board's (NTSB) recommendation for airplanes with 10- to 19-seats in scheduled service. For those aircraft, the NTSB recommended that scheduled passenger service be conducted in accordance with part 121 ". . . or its functional equivalent, wherever possible".

Clearly the NTSB used the phrase "wherever possible" because it knew that it was not possible for a substantial portion of the 10- to 19-seat airplane fleet to meet all of the requirements of part 121. The NTSB carefully chose its words when it made its recommendations for 10-19 seat airplanes used in scheduled service. The NTSB recognized that the FAA necessarily had to exercise judgment about which part 121 regulations to impose, which regulations could be modified to achieve functional equivalency, and which regulations simply might not be possible.

In regard to comments that higher fares resulting from this rulemaking will cause passengers to switch to less safe modes of transportation, it has been the FAA's observation that passengers are usually willing to pay for safety. While some may choose to drive rather than fly, that has not stopped the airlines in the past from raising fares. It should also be noted here that the public tolerates a higher accident rate for automobile travel than for airplane travel. If air transportation accident rates approached that of ground travel, most Americans would stop flying. The air transportation industry is very aware of this; it is the main reason that air transportation is safe. As one commenter points out, the recent commuter accidents caused a 12 percent drop in passengers on commuter airlines. That is a significant cost to industry.

The FAA has carefully considered the economic impact of the proposed regulations and has reviewed and revised its analysis in light of the comments received. (See section VIII.) The agency has determined that the impact of the final rule should not disrupt air transportation service and that few, if any, certificate holders will discontinue their commuter operations. During the transition period, the FAA will work with certificate holders who are switching to part 121 requirements to make the switch as smooth as possible. It should also be noted that the compliance schedule provides for a gradual updating of equipment and operations and will allow certificate holders the choice of upgrading or phasing out airplanes that cannot be upgraded without significant cost.

Some may argue that there may still be limited circumstances, even with these changes, where the effects of this rule (and related rulemakings on upgraded training requirements and pilot flight time and duty limitations) will be so burdensome as to lead to adverse safety consequences and/or a loss of critical air service. This is neither FAA's intention nor its expectation. Indeed, the entire premise of this rulemaking is that safety standards can and must be improved for the benefit of passengers in 10-30 passenger seat aircraft in scheduled service.

Nevertheless, there is in place in 14 CFR 11.25 a process for requesting and granting exemptions from regulatory requirements, including those adopted here. As with any request for exemption, of course,

to delay or avoid the cost of compliance.

The FAA considers this rulemaking a positive step towards promoting air transportation by renewing confidence in commuter operations. Most importantly, this rulemaking should reduce the accident rate of the affected commuters to a rate that is closer to that of current part 121 domestic operators.

This rulemaking is consistent with the FAA's obligation in accordance with section 44701(d) of Title 49 of the U.S. Code that when prescribing a regulation or standard to promote safety or to establish minimum safety standards, the Administrator shall consider the duty of an air carrier to provide service with the highest possible degree of safety in the public interest. The intent of this rulemaking is to provide the highest possible degree of safety to affected commuter operations.

V.B. Applicability

The FAA proposed that part 121 requirements would apply to all scheduled passenger-carrying operations for compensation or hire in airplanes with a passenger-seating configuration of 10 or more seats and to all scheduled passenger-carrying operations for compensation or hire in turbojet-powered airplanes regardless of seating capacity. (Throughout the rest of this document these certificate holders are referred to as the "affected certificate holders" or the "affected commuters.") Under the proposal, scheduled passenger-carrying operations in non-turbojet airplanes with 9 or fewer passenger seats, on-demand operations with airplanes with 30 or fewer passenger seats, operations in single-engine airplanes, and operations in rotorcraft would continue to be under part 135.

The proposed rule would also have eliminated the frequency of operations test of five round trips per week which allowed some part 135 scheduled operations to be conducted under the on-demand rules of part 135.

Comments: While no commenters specifically object to applying part 121 requirements to commuter operations in airplanes of 20 to 30 passenger seats, several commenters, many of them small part 135 certificate holders, object to applying part 121 requirements to commuter operations in airplanes of 10 to 19 passenger seats. According to these commenters, the FAA did not sufficiently justify imposing the more restrictive part 121 requirements on operations in these size airplanes and the small certificate holders of these airplanes would not be able to meet the economic burden of the proposal. A few certificate holders state that if the regulations are implemented as proposed they would either have to downgrade their airplanes, reduce the number of passenger seats, or terminate certain services. This is especially the case for small fixed-based certificate holders, who conduct mostly on-demand service with some scheduled service, and for certificate holders who service remote areas such as parts of Alaska, Hawaii, or the islands of Samoa.

Commenters also state that the burden is greater for certificate holders not affiliated with a major airline and that drawing the line at 10 or more includes many small, independent certificate holders. According to commenters, these certificate holders provide a different kind of service from what the larger commuter operators provide.

One commenter, IAPA, states that part 121 requirements should apply to all scheduled passenger-carrying operations, no matter how many seats are on the airplane. According to this commenter, by leaving out the under 10-seat aircraft from the rulemaking, passengers would be exposed to travel on the least safe aircraft operating in scheduled passenger transportation. According to the commenter, most under 10-seat aircraft are piston-engined, with a lower level of engine reliability and performance. The aircraft are frequently operated in harsh environments thereby exposing passengers to higher risks.

Many of the commenters who object to the applicability of part 121 to aircraft with 10 to 19 passenger seats, also object to the definition of "scheduled" in proposed § 119.3. According to these commenters, the effect of the current description in SFAR 38-2 of commuter air carriers that includes 5 round trips per week should not be changed. Apparently some small certificate holders that conduct mostly on-demand service also provide one or two scheduled service flights per week. According to these commenters, if they have to upgrade the airplanes and operations to part 121 to conduct these

carrying operations in turbojets under part 121 regardless of the number of passengers. While GAMA agrees with the FAA's assumption that no turbojets are being used in regularly scheduled part 135 operations, it objects to the applicability because the FAA presented no technical justification for the proposal. GAMA recommends allowing turbojets with a passenger-seating capacity of 9 or less to operate under part 135. Aerospace Industries Association (AIA) also objects that no rationale was presented for including turbojets. AIA states that the proposed rule offers an unfair competitive advantage for normal category turboprops against jets with a passenger-seating capacity of 9 or less. United West Airlines states that it is a small operation with two jets, that it costs \$70,000 a year to train its four pilots, and that the proposed rule will put the airline out of business.

Two individual commenters recommend that "any scheduled operation with airplanes seating more than 9 passengers but less than 19 passengers" be operated under supplemental rules when that scheduled operation is a code-sharing arrangement with another part 121 scheduled carrier.

FAA Response: The so-called "frequency of operation" provision in the SFAR 38-2 definition of commuter air carrier does not exist for current part 121 operations. Affected commuters being upgraded to part 121 by this rule will be required to conduct all of their scheduled operations under part 121 regardless of the number of scheduled operations. However, the FAA has decided to retain the frequency of operations distinction for those operations conducted in airplanes with a passenger-seating configuration of 9 seats or less by revising the definitions of "commuter operation" and "on demand operation" in § 119.3. Therefore, scheduled operations in airplanes with a passenger-seating configuration of 9 or less (except turbojets) and conducted on a particular route with a frequency of fewer than five round trips per week (regardless of whether one or more airplanes are used on the route) would be conducted under the requirements applicable to on-demand operations.

The FAA believes that, because of the nature of the operation in which small turbojets, which are type certificated under part 25, are used (e.g., transoceanic, long range, international, etc.), they approximate the operations of larger air carriers. For example, part 135 contains no requirements for long-range navigational equipment or long-range fuel considerations. In an effort to increase the safety for passengers carried in those kinds of operations, the FAA has determined that any scheduled operations of turbojet airplanes should be conducted under part 121.

The FAA disagrees with commenters who suggest that commuter operations in code-sharing arrangements should be conducted under the rules for supplemental operations. Code-sharing, although it may affect passengers' perceptions, is a business/marketing arrangement and is not the basis for an FAA regulatory scheme. Scheduled operations in airplanes with 10 or more passenger seats should come under part 121 domestic or flag, as appropriate, not under supplemental rules.

The only operators who currently operate under part 135 on-demand rules that would be required to conduct their operations under part 121 scheduled rules are those who are included because, as discussed above, part 121 does not contain a frequency of operation provision. If circumstances in the future necessitate a change to these rules, commenters will have an opportunity to comment on any proposed changes.

Air Tour Industry Comments: Several comments were received from air tour operators in the State of Nevada and the vicinity of the Grand Canyon. Some of these certificate holders would be affected by the rulemaking because they operate nontransport category airplanes of 10 to 19 seats and because they provide point-to-point service; for example, from Las Vegas to Grand Canyon Airport even though the flights are exclusively marketed as sightseeing and not point-to-point travel. Despite the fact that they technically fall into the category of a commuter operator, these commenters claim that they are more like an on-demand operator and that the proposed rule would penalize them for using larger, safer airplanes than their competitors. One of these commenters states that it does not fly city to city, but flies regularly scheduled flights that take off and land at the same airport. This operator states that, because of the nature of the operation and because of the proposed definition changes, it would be required to comply as a scheduled operator.

safety benefits such as the following:

- The two-pilot crew requirement with captains required to hold an Air Transport Pilot rating.
- Aircraft certificated to higher levels of aircraft performance.
- Aircraft maintenance procedures under the more comprehensive Continuous Airworthiness Maintenance Program.
- Safety equipment such as GPWS, TCAS, CVR, and weather radar.

One commenter lists some of the more "onerous" proposed requirements:

- "Ditchable" exits in case of water landings.
- Emergency floor path exits.
- Third attitude indicator (in aircraft flown in daylight under visual flight rules).
- Portable protective breathing equipment (PBE).

A commenter points out that the new aircraft performance requirements would limit maximum operating weight at Grand Canyon due to the high altitude.

According to these commenters, switching to smaller airplanes will increase air traffic congestion in the Grand Canyon area, decrease safety for passengers, and double or triple noise levels.

According to one commenter, these certificate holders do not have code-sharing partners and while these certificate holders sometimes provide point-to-point service, the flights are typically part of an all-inclusive tour package which includes ground transfers to Las Vegas hotels, sightseeing flights to the Grand Canyon, and motor coach tours of the Grand Canyon. This is totally unlike typical commuter operations.

Another commenter, however, says that at least one of the air tour operators does use code-sharing with a major carrier and that the offering of its scheduled flights is available by referencing airline computers all over the world.

Some of the commenters cite an NTSB report ("Safety of the Air Tour Industry in the United States," June 1, 1995) which states that the implementation of SFAR 50-2 has created a safe operating environment for air tour operators over the Grand Canyon. One commenter quotes NTSB as saying, "The level of safety of air tour operations could be improved by creating a national standard for air tour operations that contains definitions specific to the air tour industry and specific requirements, including unique operations specifications, to accommodate localized unique conditions, similar to the special conditions contained in SFAR 50-2."

One commenter states that his company recruits retired airline pilots to provide a high level of experience and stability to the flightcrews.

The Clark County Board of Aviation is concerned that the proposed rule could be devastating to individual certificate holders and adversely affect the vitality of the air tour industry in Southern Nevada.

The Grand Canyon Air Tour Council states that the proposed expanded definition of "scheduled operations" is the problem and that the definition was changed with no satisfactory explanation or justification.

The Office of the Lieutenant Governor of Nevada testified at the public meeting held in Las Vegas that compliance would affect a "\$250 million industry that we have worked hard to develop."

FAA Response: The FAA does not agree that air tour operations are totally unlike commuter operations. Much of an air tour flight is like much of a commuter flight. If an air tour operator is conducting scheduled operations, as defined in § 119.3, in airplanes with a passenger-seating configuration of 10

will consider the recent NTSB study cited by commenters. Because certain part 121 and 135 provisions are being recodified into part 119, SFAR 50-2 and SFAR 71 are being updated to conform to this rulemaking.

Alaskan Comments: Several comments were received from certificate holders in Alaska, Alaska government agencies, and others interested in how the proposal will affect Alaskan operations. Currently Alaskan certificate holders conducting scheduled operations in airplanes of 10 to 30 seats comply with part 135. The regulations allow them not to comply with flight time limitations for scheduled operations (§ 135.261(b) and (c)) and instead allow them to follow the regulations for on-demand operations. Alaskan certificate holders using airplanes of more than 30 seats must comply with part 121 supplemental requirements for nonscheduled flights and flag requirements for international and intra-Alaska scheduled operations. Notice No. 95-5 proposed no exceptions for Alaska. Certificate holders whose operations fit the applicability for scheduled operations for airplanes of 10 or more seats would be required to comply with part 121 domestic requirements. International operations would follow flag requirements of part 121 and charter operations would follow supplemental requirements of part 121. Alaskan operators currently operating under part 121 flag rules would have to operate under part 121 domestic rules except for those operations that meet the definition of flag operations in proposed § 119.3.

The basic thrust of the comments is that the Alaska environment is unique and that requiring Alaskan commuter operators to comply with part 121 requirements would be devastating to certain certificate holders in Alaska and therefore to certain segments of air transportation. Furthermore commenters point out that most air transportation in Alaska is conducted in small reciprocating-powered airplanes with passenger-seating capacities of under 10 seats. Therefore, the proposed rule would not have a significant effect on air transportation safety in Alaska and would impose an economic burden on a few certificate holders who provide upgraded, i.e., safer, service. According to commenters, the accident rate for airplanes with under 10 seats is much higher than for turbine-powered airplanes with 19 seats. (Accident data analyzed by the FAA verifies that, unlike the rest of the nation, the part of the commuter fleet in Alaska involved in accidents contains a large proportion of under-10-seat aircraft.)

Peninsula Airways (Penair), as well as other commenters, states that characteristics of Alaska make commuter operations in the State unlike those in other parts of the country. In particular flights are conducted in the same time zone, pilots do not have long commutes to their jobs, flights are not usually conducted between 9 p.m. and 7 a.m., and operations subject to Air Traffic Control (ATC) are not in congested airspace. This rationale is primarily in defense of using the flight time limit requirements of part 135 nonscheduled operations.

Several commenters emphasize the absolute necessity of air travel in Alaska where many of the towns and villages are not accessible by road. They say that Alaskans are dependent on air transportation and the cost of that transportation must remain affordable. High cost items in the proposal, such as the possible need to upgrade airports, the use of a dispatch system, the various equipment requirements, and certain performance requirements, would boost the fares to levels that many residents of Alaska could not afford. The State of Alaska Department of Transportation and Public Facilities states that "the proposed air carrier and airport regulations could devastate Alaska's heavily aviation dependent economy."

The Alaska Air Carriers Association (AACA) states that the proposed rule would end the growth of the 10- to 19-seat airplane and would increase fares by 67 to 100 percent. The proposed airport legislation is expected to cost the state \$100 million. AACA states that the proposed rule would directly affect only 15 certificate holders in Alaska. Two-thirds of the scheduled air carriers use aircraft with a seating capacity of 10 seats or less.

ERA Aviation, which currently operates under part 121 flag rules, objects to the proposal to operate as domestic/supplemental. It operates over 100 aircraft, fixed and rotary wing, nationally and internationally. The commenter states that for years Alaska part 121 operators have been operating under flag rules, both for scheduled and nonscheduled operations. This has allowed increased flexibility in crew scheduling, which is necessary because of the length of Alaska routes, the lack of facilities in remote locations,

in effect have to remove a seat in order to continue operating in scheduled service under part 135. Single-engine airplanes are ineligible for operation under part 121. The only 10-seat single-engine airplane model involved is the single-engine de Havilland DHC-3 Otter (not to be confused with the twin-engine de Havilland DHC-6 Twin Otter mentioned elsewhere in this notice). According to AACA and other commenters, there is no possible safety benefit in taking a seat out of an airplane, but the cost to certificate holders who want to continue to use these airplanes in scheduled operations will be significant.

NATA comments that no accident involving the Otter would have been prevented by limiting the seating to 9 passengers. Furthermore, according to the commenter, the FAA cost on this issue is another example of gross underestimation; actual costs will be 15 times higher (almost \$22,000 per aircraft). The City and Bureau of Juneau opposes the proposal to remove a seat from the 10-seat airplanes so that they can operate under part 135. This commenter notes that there will be additional flights, additional noise, and additional congestion on the water and in the air. It notes that it is incomprehensible how the reduction of one seat from the Otter will provide an additional level of safety. Wings of Alaska comments that the most cost-efficient floatplane used in southeast Alaska is the single-engine DHC-3 Otter. Because there is no cost-effective replacement aircraft available for float operations that offers the same capacity as the Otter, replacing them is not an option. Wings states that it operates the Otter about 6 months a year. Four communities that do not have runways receive daily service. Wings purchased five 10-seat Otters in '92-93 to improve service to a wilderness sports facility, substantially reducing noise by reducing the number of flights by 50%. Wings notes that considering initial operating experience (IOE) and route check requirements, it is being operated at a higher level of safety than the 10 seat, on-demand aircraft allowed under the rule to be operated in part 135. Wings estimates that the removal of one seat would have cost them \$85,000 in 1994. Wings asks that the Cessna Caravan and the Cessna Grand Caravan also be allowed to operate with 10 seats. AACA comments that Ketchikan Air Service, Taquan Air Service, and Wings of Alaska together operate 12 Otters in southeastern Alaska.

The NTSB comments that it intentionally excluded airlines that operate exclusively in Alaska from its study of commuter airline safety because of the unique characteristics of the environment in Alaska. The NTSB currently is conducting a study of commercial Alaska aviation including commuter airlines. The NTSB held two public meetings in Alaska during June 1995 and visited a number of scheduled and nonscheduled part 135 certificate holders to collect information for the study. The NTSB intends to compare flying operations in Alaska with the rest of the U.S. The study is scheduled for completion in 1995. Several other commenters mention the study and suggest that the FAA should wait until the study is completed before making any changes to Alaskan regulations.

ALPA, GAMA, and other commenters state that safety issues are the same in or out of Alaska and that, therefore, Alaska should not be given a blanket exemption from the rulemaking. ALPA and GAMA state that Alaskan certificate holders, as well as certificate holders in other parts of the country, may need to be exempted from certain requirements that are not applicable to the type of operations being conducted and should go through the standard exemption request procedures in such cases.

One comment from an individual pilot in Alaska states that the schedule he flies of 14 days on and 14 days off is exhausting, and that even though he gets 10 hours of rest in each 24 hours, it is not enough over a 14-day period. He is in favor of the proposed flight time limit changes.

Some Alaskan certificate holders comment that they rely on experienced pilots who are familiar with the particular demands of Alaskan operations. Penair states that 10 percent of its pilots are age 60 or over and that 20 percent are over age 52.

Commenters who oppose the rule suggest either exempting Alaska altogether, not including the 10-to-19 seat airplanes in the rule, or allowing under-19-seat airplanes to be covered under the supplemental rules of part 121 rather than the domestic rules.

FAA Response: The FAA agrees with the commenters who state that safety issues are the same in or out of Alaska. The FAA has specifically considered the implications of the proposal on Alaska given its unique characteristics and has determined that the rules should apply to Alaska as proposed.

in the cabin. Some certificate holders are authorized to conduct scheduled operations in that airplane, the DHC-3 Otter, under daytime VFR, and carry a tenth passenger in the right-hand pilot seat. In Notice 95-5, the FAA proposed to limit all scheduled operations of single-engine airplanes to the carriage of nine passengers, under all conditions. (60 FR 16235, 16273) The FAA has decided to allow the current practice to continue for operators who currently conduct single-engine operations under daytime VFR with a tenth passenger.

Comments on Exemptions/Deviations/Waivers: Currently some certificate holders operating under part 135 that will be affected by this rulemaking have obtained exemptions, deviations, and waivers from certain part 135 requirements.

AACA states that AACA has held an exemption on behalf of its members allowing removal and installation of aircraft seats by certain pilots and trained ground personnel under an FAA-approved program. The commenter states that it is unclear whether or not aircraft operated previously under part 135 in Alaska would be allowed to continue this seat removal and installation under part 121 with an appropriate exemption. AACA states that taking away this option would significantly increase air carriers' costs and diminish their flexibility to utilize aircraft in "combi" (combination cargo/passenger) configurations. AACA recommends that all exemptions, deviations, or waivers held by a part 135 operator automatically be carried over into its part 121 operation. As presently written, Notice 95-5 would require compliance with part 121 first, and only then would the FAA evaluate requests for exemptions to part 121 rules. This places additional and unwarranted operational costs on air carriers transitioning to part 121.

FAA Response: The specific exemption referred to by the AACA applies only to operations with airplanes with a passenger-seating configuration of 9 or less, and therefore is not affected by this rulemaking.

However, exemptions issued for operations under part 135 do not automatically continue in effect for operations under part 121. Therefore, affected commuters who will in the future be operating under part 121 must reapply for any exemptions they believe should apply to their part 121 operations after the compliance date of this rule. Also, general exemptions issued to present part 121 operators will not apply automatically to new part 121 operators so any new part 121 operator will have to apply to be included in these existing exemptions.

V.C. Aircraft Certification

The proposed rule would amend part 121 to require each 10- to 19-passenger seat airplane that is to be operated in scheduled operations and for which an application for type certification is made after March 24, 1995, to be type certificated in the transport category. Affected commuter airplanes are type certificated under the requirements of part 23.

In Notice 95-5 the FAA stated its intent to review the standards of parts 23 and 25 to see if the level of safety intended by part 25 could be achieved for those airplanes with a passenger-seating configuration of 19 or less through compliance with a particular standard of part 23 or another standard, in lieu of the corresponding standard of part 25. On completion of that review the FAA stated its intent in future rulemaking to consider amending part 25 as necessary to accommodate type certification in the transport category of certain types of airplanes previously type certificated in the commuter category.

The FAA also proposed that airplanes configured with 10 to 19 passenger seats already in service or manufactured in the future under an already existing part 23 commuter category type certificate would have to comply by specified compliance dates with certain performance and equipment requirements in part 121. These performance and equipment requirements are discussed later in this preamble.

In Notice 95-5 the FAA included a table that set out a list of potential modifications that were being considered for application to airplanes having a passenger-seating configuration of 10-19 seats that were type certificated in the commuter category (or a predecessor) if the airplanes are to be used in scheduled operations under part 121. The table included a column that indicated that for 12 of the 38 issues addressed, the FAA had determined that any required upgrade should apply only to airplanes manufactured under a type certificate for which application is made after March 24, 1995. Since these

American Eagle supports the proposed rulemaking and states that, "while there may be limited circumstances when aircraft design and/or manufacture may preclude or delay compliance with FAR part 121 or FAR part 25, cost and weight considerations should not be an acceptable barrier to the increase in safety which is derived from applying the higher standards of aircraft airworthiness, airline operations and passenger safety which those regulations provide."

In contrast, six other commenters do not believe that any propeller-driven airplanes with 10 to 19 passenger seats should be required to meet the transport category standards of part 25. Although the commenters' reasons vary, the comments focus on three basic issues: (1) Commuter category standards are appropriate for airplanes of this class; (2) there is no evidence that safety would be enhanced by requiring future airplanes to comply with part 25; and (3) the cost of complying with part 25 would be prohibitive.

Similar comments concerning recertification of existing part 23 airplanes under part 25 were also offered, apparently under the misunderstanding that airplanes already type certificated, or derivatives of those airplanes, would have to be recertificated under part 25.

Some commenters believe that the airplane certification issue is of such magnitude that it should be held in abeyance for a separate future rulemaking program. In this regard, the commenters assert that extensive changes to part 25 would be needed to accommodate the airplanes otherwise certifiable under part 23 commuter category and that those changes would entail a considerable expenditure of FAA resources. They further believe that any such changes should be subject to harmonization with corresponding standards of the European Joint Aviation Requirements (JAR).

Several commenters cite the FAA's 1977 proposal to require all airplanes used in air carrier service to meet part 25 transport category standards. That proposal was later withdrawn. According to commenters, the part 23 standards of that era were considerably different from those of today's part 23 commuter category. The level of safety expected by the public today is much greater than that tolerated in 1977.

A number of other commenters address the proposed retrofitting of existing part 23 normal and commuter category airplanes to meet certain part 25 standards. Those comments are addressed in the section-by-section portion of this preamble (section VI).

One commenter has developed and produces a unique propulsion system in which two turbine engines drive a single propeller through a common gearbox. In addition to the installations already being made in existing airplanes, the commenter anticipates a future installation of this system in an airplane of entirely new design. Since any new model would have to be type certificated under the provisions of part 25 in order to be eligible for operation under part 121, the commenter requests that part 25 be amended to accommodate airplanes with this or similar propulsion systems.

FAA Response: Rather than forcing the retirement of part 23 normal category airplanes, as recommended by ALPA, the FAA proposed in Notice No. 95-5 to permit their continued use in air carrier service provided certain changes were made on a retrofit basis to enhance their level of safety. Banning those airplanes would be extremely costly, but most importantly could result in an unintended safety decrement. Indeed, the FAA's analysis indicates that moving too quickly on the imposition of part 121 standards could have the unintended effect of lowering the level of safety because operators would not be in a financial position to quickly obtain new airplanes and currently there are not enough replacement airplanes available that meet the higher standards. The result could be a shift from 10- to 19-seat turbopropeller airplanes to 9-seat or less reciprocating engine airplanes, which have an even higher accident rate.

The six commenters' assertions that commuter category standards of part 23 are appropriate for airplanes of this class and that there is no evidence that safety would be enhanced by type certification under part 25 are, to a certain extent, correct. Through a number of recent amendments and pending amendments, the level of safety established by the commuter category has been and is being enhanced considerably. In many instances, commuter category airplanes must meet standards that are the same as, or very similar to, those of part 25 transport category. Requiring future 10- to 19- passenger seat

V.D. Flight Time Limits and Rest Requirements

The FAA proposed that the part 121 domestic flight time limits and rest requirements would apply to affected commuter operators when conducting operations within the United States. Under the proposal affected commuter operators, when conducting operations to or from the United States, would comply with the flag flight time limitations and rest requirements of subpart R. Additionally, if these certificate holders use these same airplanes for nonscheduled operations, those certificate holders would be required to comply with supplemental flight time limitations and rest requirements of subpart S of part 121.

As stated in Notice 95-5, since the flight time limitations and rest requirements for flag and supplemental operations were not updated in 1985 when domestic limits were, the FAA has developed an NPRM that is being issued concurrently with this final rule. (See elsewhere in this issue of the *Federal Register*.)

Comments: Atlantic Southeast Airlines (ASA), Regional Airlines Association (RAA), and Big Sky Airlines comment that the FAA should provide specific and scientifically-based data to support this significant change. Fairchild Aircraft adds that the additional time off duty provided by the proposal will not necessarily be used for rest. NATA comments that there are differences in part 135 operations that justify a different set of flight time limitations and rest requirements: part 135 operations are generally confined to a particular area, pilots of smaller certificate holders rarely commute a long distance to and from work, and pilots have fewer overnight stays as part of their schedules. Air Vegas comments that unless an exception is provided, seasonal operators would have to hire additional crews in order not to exceed the 7-day limit of 30 hours or the monthly limit of 120 hours. This commenter notes that short-term employment of such pilots is next to impossible. Morton Beyer and Associates comments that the cost of hiring additional pilots is expected to add another \$250 million to airline costs. Twin Otter International comments that the 1,200 yearly limit in part 135 is based on the part 121 100-hour-per-month concept, and that the regulations really are similar.

Several individuals strongly urge the FAA to adopt the part 121 standards for the upgrading commuter pilots. American Eagle comments that it applies part 121 domestic rules to its part 135 operations and believes that all air carriers providing commercial passenger service should use either the domestic or flag rules of part 121.

One individual notes that the reduced rest provision in part 135 allows for only 8 hours of rest between scheduled flights. Another individual comments that commuter pilots have a high frequency of takeoffs and landings, fly in the busier low-altitude airspace, deal with more controllers per flight mile, and deal with more weather than their part 121 counterparts. One person comments that certificate holders routinely schedule 3-4 hour breaks to preclude violations of the 8 hours of flight in 24 hours rule; however, the effect of this is to stretch out the duty day. The result is a higher duty time to flight time ratio which is not accounted for in the current rules. IAPA supports the proposal but also expresses concern that the current regulations fail to count, as part of duty time, the time period when flightcrews are on reserve duty, standby duty, or carrying a pager or other telephonic device. IAPA urges the FAA to treat reserve or standby duty as duty time.

ALPA comments that while the upgrade to part 121 will result in an improvement in flight time limits and rest requirements, part 121 will continue to be deficient in this area until additional rulemaking action is taken, as promised by the FAA.

Alaska commenters argue for maintaining the current regulations. ERA Aviation estimates that if the proposed rule is adopted, it would necessitate at least a 15% increase in the number of pilots it would need, resulting in a \$500,000+ increase in costs. Penair finds four reasons for excepting Alaska: Operations are conducted in the same time zone, few Alaska pilots commute to their jobs, less than 5% of Alaska operations occur between 9:00 p.m. and 7:00 a.m., and Alaska does not have the congested ATC operations which are found in the lower 48 states. AACA also presents this argument, adding

not for days on end. The individual questions the logic that one is more rested in one geographic area than in another. According to the commenter, duty cycles that are unsafe in the lower 48, are also unsafe in Alaska.

Another individual from Alaska states that the FAA has shown no data to indicate any problem with the provisions of § 135.261(b), which allows Alaskan scheduled operators to use § 135.267. The individual states that in 1994, he flew 1320 hours, had 173 days off, slept in his own bed every night, and never had less than 10 continuous hours of rest in any 24-hour period. He believes he probably had more rest and time off than the average long-haul part 121 pilot. The commenter states that the proposed flight/duty time limits would cause scheduling nightmares for operations in rural/remote parts of Alaska.

FAA Response: The FAA is holding in abeyance a final decision on the proposed imposition of current part 121 flight time limitations and rest requirements on affected commuters pending a review and disposition of comments on the separate flight and duty rulemaking in which the FAA proposes to overhaul all the flight and duty rules. The separate rulemaking, if adopted, would harmonize flight and rest requirements for all part 121 and part 135 carriers. The FAA anticipates that the separate rulemaking will result in a net cost savings to the industry as a whole. In the meantime, affected commuters will continue to operate under the current part 135 flight and duty rules. This will prevent needless expenditure of resources by affected commuters who would have to implement flight and rest provisions under the commuter rule proposal and then later might have to change their system to comply with the separate rulemaking. For the same reasons the FAA will allow part 121 certificate holders operating in Alaska and Hawaii to continue to follow the flight and duty rules of part 121 applicable to flag operations, even though under this rulemaking these certificate holders are now classified as conducting domestic operations.

Accordingly, §§ 121.470, 121.480, and 121.500 include an exception for affected commuters allowing that they continue to comply with flight time limits and rest requirements of part 135. Additionally, § 121.470 will allow existing Alaska and Hawaii intrastate scheduled domestic operations to continue to be conducted under flag rules.

V.E. Age 60 Rule

Section 121.383(c) prohibits a certificate holder from using the services of any person as a pilot, and prohibits any person from serving as a pilot, on an airplane engaged in operations under part 121 if that person has reached his or her 60th birthday. Part 135 has not had any such limitation. The FAA proposed to impose one age limitation on all pilots employed in part 121 operations, including those pilots currently employed in affected part 135 scheduled operations. The FAA stated in Notice 95-5 that if it determines that it is appropriate to propose a different age limit in another rulemaking action, it will propose to apply the revised limitation to all part 121 operations, including the pilots in commuter operations.

Comments: The age limitation question was the subject of over 2,000 written comments (including about 1,000 postcards from members of an airline pilot organization) and oral presentations at public meetings. The overwhelming majority of these comments concern the general question of whether there is a need for an age limit in part 121, and do not address any particular aspects of applying an age rule to commuter pilots.

Several commenters, however, state that if commuter pilots are subjected to an age limit, the FAA should adopt a phased-in implementation schedule to avoid abruptly ending the careers of pilots who had not planned on retiring at age 60. Another commenter states that it hires over-age-60 retired part 121 pilots.

FAA Response: As discussed above, the FAA has identified a strong need to enhance the safety of commuter operations. Commuter airlines are carrying an increasing number of passengers over an increasing number of miles. While safety has improved over the past two decades, commuter airlines

the risk that age-related degradation will affect pilot performance. A pilot may have the best training in the world, and be well-supported by an aircraft dispatch system, but if the pilot suffers from a subtle age-related degradation in performance, safety will be reduced. Also, the potential safety benefits of training and dispatching may be reduced by human safety lapses that could occur or do occur more frequently with age.

The "Age 60 Rule" was adopted by the FAA in 1959 (24 FR 9767, December 5, 1959). At the time Notice 95-5 was issued, the FAA was also considering whether, in the interest of safety, the Age 60 Rule should be retained as is or revised to allow pilots to continue to fly in part 121 operations past their 60th birthday. The FAA completed its review of the Age 60 Rule. In a Disposition of Comments (Disposition) published in the *Federal Register*, [cite], the FAA announced that it will not propose to change the Age 60 Rule at this time. The Disposition thoroughly discusses the various issues regarding the need for an age limitation and what that age should be, including the issues raised in the comments to Notice 95-5 that concern the Age 60 Rule in general, and those comments will not be further discussed here. This rulemaking deals only with the application of part 121 rules to affected commuter operations.

In Notice 95-5 the FAA proposed a general compliance date (that is, a date on which most provisions must be complied with) of 1 year after publication. The Notice also proposed delayed compliance dates for several of the requirements (other than the age limitation), to provide time for the work necessary to comply with the proposed requirements. In this final rule, the FAA has adopted a general compliance date of 15 months after the date of publication of this final rule in § 121.2(c), and also has adopted delayed compliance dates for a number of requirements, giving the air carriers 2, 4, or more years to comply with certain of the new requirements.

In response to the comments requesting delayed compliance dates, and after further evaluation, the FAA has considered that there are factors warranting delay in the compliance date for the Age 60 Rule, as it applies to those affected commuters that now will be brought under part 121. The lack of an age limitation in part 135 has created reasonable expectations on the part of both the affected commuter operators and pilots regarding the length of time that the pilots would continue in service. Some of those operators have spent money to hire and train pilots with the expectation that they would serve past the age of 60; and the pilots have not had to plan on leaving their positions at age 60. In fact, certain affected commuters appear to have a practice of hiring retired part 121 pilots, and will no longer be able to do so.

Further, this rule requires the affected commuters to make extensive changes in equipment, personnel, and procedures before the general compliance date. Also, final rules have been adopted that impose new requirements for training, including standardized pilot training and crew resource management training. The affected commuters operators should not be required to stop using the services of their over-age-60 pilots in scheduled operations (10 or more seats) and train replacements until these new programs are in place, and the training can be under the new programs.

Accordingly, the FAA has determined that the Age 60 Rule, as it applies to certain pilots, should have an extended compliance date. As it applies to pilots newly hired by commuter operators, the Age 60 Rule will apply on the general compliance date indicated in § 121.2(c). Until that date, there will be no age restrictions on the pilots of commuter operations that are upgrading to part 121. After that date, the affected commuters will no longer be able to hire pilots who have reached their 60th birthday (except for pilots who as of that date were employed as pilots for another affected commuter). However, pilots who are employed by affected commuters on that date will be able to continue to serve until December 20, 1999, after which the Age 60 Rule will apply to every pilot under part 121.

The delay in applying the rule will provide some relief from the difficulties discussed above. The 4-year compliance period for these pilots will permit the affected commuters to recover services for several more years from those pilots in which they recently have invested in training. Delaying the application of the rule to new hires until the general compliance date will give affected commuters time to adopt new hiring practices, at a time when the operators will have many other new requirements

over initiating, conducting and terminating a flight." Operational control consists of making decisions and performing activities on an ongoing basis that are necessary to operate specific flights safely. These activities include among other things crew and airplane scheduling, reviewing weather and NOTAM's (Notices to Airmen), and flight planning.

Parts 121 and 135 provide for three general types of operational control systems based on the kinds of operations and the complexity of operations: aircraft dispatch, flight following, and flight locating systems. Part 121 domestic and flag operations require a dispatch system, part 121 supplemental requires a flight following system, and part 135 requires a flight locating system for any flight for which a flight plan is not filed. In Notice 95-5, the FAA proposed that the affected commuters would be required to have a dispatch system. Affected commuters would have to meet all part 121 dispatch requirements, including dispatcher qualification requirements, recordkeeping, and flight release requirements. As proposed, affected commuters that would conduct some nonscheduled flights under part 121 supplemental rules could use a flight following method for the nonscheduled flights.

The FAA also stated in Notice 95-5 that Alaskan operations pose certain unique problems and requested comments on alternatives that could be considered for Alaska.

Comments: Two individuals suggest that the use of a dispatcher and dispatch system be an option for 10- to 19-seat certificate holders, recommending compliance with existing subpart F of part 121. Both commenters believe that the FAA should seriously consider permitting, at least on an interim 36-month basis, compliance with subpart F flight following requirements in lieu of subpart E dispatch requirements for transition carriers. This will, in their opinions, gain the early momentum of the industry by making it possible for many certificate holders to transition early. A long lead time is necessary to qualify existing personnel as dispatchers under existing part 65. The commenters remind the agency that during the early 1980's, by the FAA's own rules, 20- to 30-seat aircraft were subject to part 121 supplemental rules, including the flight following requirements of subpart F. One of these individuals also states that interim compliance with subpart F flight following requirements would ease the transition to subpart E dispatch requirements for affected certificate holders.

NATA comments that the FAA lacks understanding on the types of operations 10- to 19-seat certificate holders typically fly and recommends a flight following system instead of a dispatch system. NATA states that many small, independent carriers operating aircraft with 10 to 19 seats may have only 2 to 4 of these types of airplanes and may operate them over only a few selected routes. According to NATA, many of these carriers conduct on-demand operations in addition to their scheduled activity. NATA believes, along with several other commenters, that for operations such as these, to implement a full dispatch system will result in significant cost with little or no benefit.

RAA and other commenters suggest that the FAA identify specific safety objectives in requiring a dispatch system for short-haul certificate holders.

One commenter believes that a formal dispatch system for all scheduled air carriers should be required, but points out both the pros and cons of requiring such a system. This commenter, as well as others, states that pilots may be shouldering many additional responsibilities other than flying the aircraft in an effort to minimize the cost of flight operations. Due to the task saturation of pilots and other crewmembers, functions involving flight planning, weather analysis, and weight and balance calculations may not be thoroughly performed. According to the commenter, the majority of commuter pilots are, as a rule, very young and inexperienced. These crews must continually perform at peak levels of performance both on the ground and in the air.

According to this commenter, as well as others, the use of the flight dispatcher would increase safety, operational efficiency, and productivity. The duties of filing the flight plans, checking NOTAMs, planning fuel requirements dictated by weather, and obtaining ATC routing would be completed by the dispatcher prior to the crew arriving for the flight. Optimum routes based on known ATC or weather delays would be filed, resulting in substantial fuel savings and improved arrival and departure reliability. The pilots would now be able to concentrate on flying and be able to relax and rest between flights.

One commenter states that the requirement for a formal dispatch system is long overdue.

One commenter believes that dispatch centers might create a sense of complacency on the part of the flightcrew and, along with other commenters, thinks that automated flight planning and flight following information should be used in lieu of dispatchers and dispatch centers. Two of the commenters advocating automated flight following systems state that the three accidents cited by the FAA in Notice 95-5 would not have been prevented by the use of a dispatcher. One commenter states that in his experience PIC's typically check dispatcher computations but do not duplicate the computations as the FAA stated in Notice 95-5.

The NTSB states that in its 1994 study report, it examined the differences in flight dispatch requirements between parts 121 and 135. The NTSB found that, in the absence of support from licensed dispatch personnel, pressures on commuter airline pilots to accomplish several tasks between flights in shorter periods of time might increase the risk of critical mistakes that could jeopardize the safety of flight. As a result, the NTSB recommended that the FAA require each principal operations inspector (POI) to periodically review air carrier flight operations policies and practices concerning pilot tasks performed between flights. This review was to ensure that carriers provide pilots with adequate resources (such as time and personnel) to accomplish those tasks. According to NTSB, the proposed rulemaking, if implemented, would meet the intent of the safety recommendation (A-94-193).

ASA, RAA, and Gulfstream International Airlines support many of the elements of the dispatcher rule. They state that flight dispatch systems that are required under part 121 are extensive since they address the dispatch and en route communications needs for a span of air carriers from international airlines with worldwide flight operations to the largest U.S. regional carriers. ASA supports the requirement for licensed dispatchers, believing that the most qualified candidates for licensing as dispatchers are the individuals currently employed as flight followers. These commenters request that the criteria in § 65.57 be examined to provide guidance for granting a dispatcher certificate based on practical experience as a flight follower under part 135 operations. According to the commenters, many flight followers have passed the written portion of the dispatch license but have not attended formal dispatch school and do not hold licenses. However, they may have extensive practical experience in scheduled air carrier operations performing what is essentially a dispatcher function. According to these commenters, the criteria contained in § 65.57 includes experience in scheduled military operations. The commenters believe that if military experience is applicable, the experience of a flight follower with a scheduled airline should qualify. These commenters also point out that the practical portion of the dispatcher license is administered using a Boeing 727 aircraft. The commenters believe that while many of the functions and decision making circumstances would be the same, the experience of part 135 flight followers, managing flights of high performance turbopropeller-powered aircraft is a considerably more significant and practical measure of their capabilities than military experience or demonstrating their skills in managing a turbojet operation. The commenters believe that the cost and time to send current flight followers to a formal dispatcher school is not justified.

Samoa Air comments that since its longest flight is only 70 miles (35 minutes), a dispatch system would not enhance or change any of its current requirements. Samoa has established VFR and IFR fuel requirements to all of its destinations and the requirements do not change. The only alternate airport is the destination airport. Samoa also states that § 121.101 requires each domestic and flag operator to show that enough weather reporting facilities are available along each route to ensure weather reports and forecasts necessary for operations. Section 135.213 allows the pilot in command to use various other sources, including his own weather assessment, for VFR operations. Of the four airports Samoa serves, only one (departure airport) is in controlled airspace with weather reporting facilities and instrument approach procedures. Enroute and terminal weather conditions are received through the ATC tower from their weather station. VHF communications with the tower cover almost the entire route, so the aircraft has ready access to any weather information available and direct information on the status of communications, navigation, and airport facilities. A dispatcher would not enhance safety but would add significant cost. If Samoa is required to provide weather conditions at each airport to the pilot from an approved

by telephone. The commenter states that current flight following procedures meet part 135 requirements and are operationally safe and efficient.

Mesa Airlines comments that due to its short flight segments and the lack of significant weather changes in the areas in which it operates, a dispatch system is not needed. Mesa believes that all enroute communications can be accomplished by ATC.

AACA states that the requirements of subpart E come at a time when the availability of weather information in Alaska has been identified as a significant issue adversely affecting aviation activities (proceedings of an NTSB "Aviation Safety in Alaska" forum, May 1995).

The Airline Dispatchers Federation supports the dispatch proposal and agrees with the upgrading of current commuter facilities to dispatch centers. It believes this upgrading is necessary because of the extensive use of code-sharing by the aviation industry. The commenter is not in favor of amending part 121 dispatch rules for certificate holders of the 10- to 19-seat category. The commenter provides its estimate of costs to certificate holders that could be affected by the implementation of this rule. The commenter notes that the costs provided by some certificate holders may not be accurate. For example, cost estimates concerning flight planning and performance issues are inaccurate since several airlines use bulk stored flight plans and performance information taken directly from aircraft flight manuals for fuel planning. The commenter also provides its assessment of various aircraft accidents for which it believes dispatchers could have made a difference in changing events that led to the accident (crew fatigue, lack of management oversight, operational control issues, late arriving weather information).

ALPA comments that dispatchers should be required to complete their 5-hour inflight operating experience in 10- to 30-seat aircraft, not in larger 60-seat aircraft, as currently allowed. ALPA proposes that § 121.400(b) be amended by adding a group specific to propeller-driven aircraft with a seating capacity between 10-30 seats.

AACA comments that due to the operating environment of Alaska, the pilot and not the dispatcher is in a better position to access and evaluate operational control information. The commenter believes that scheduled operations in Alaska more closely resemble the operations conducted under supplemental rules and not domestic or flag operations. The commenter notes that pilots frequently are not in radio communication with company offices directly, but could communicate via Flight Service Station, ATC, or other aircraft. According to the commenter, enroute and destination weather conditions are either not accessible or not available at any time from "official" sources. The commenter notes that three affected certificate holders in Alaska presently have a part 121 type dispatch system in place. AACA further states that the assumption that estimated fuel savings by dispatchers would offset the cost of establishing a dispatch system is not true. AACA recommends that the FAA adopt the flight following supplemental rules of part 121 for Alaskan 10-19 seat certificate holders. AACA also recommends that current part 135 personnel be "grandfathered" for dispatcher certificates if they have been employed as flight followers. The commenter notes that the practical experience dealing with turboprop aircraft and flight planning may be lost to the industry if flight followers are required to take extensive dispatcher training courses, pass a written and practical test, and lose time and money on the job while they obtain an FAA dispatcher certificate.

FAA Response: The FAA anticipates that requiring operators to have a certificated dispatcher double check the work of the pilot and provide the flightcrew with updates on weather and alternate airports can reduce human factor errors. With a dispatcher system, the chances of pilot miscalculations or oversights could be reduced. Moreover, a dispatcher can assist the flightcrew in making plans for an alternate airport (which might be necessary due to weather problems, air traffic control problems, airplane equipment problems, fuel problems, etc. . . .) during the flight while the crew focuses on flying the airplane.

The FAA disagrees with the recommendation to make the use of a dispatcher and dispatch system optional since that would not address the safety issues involved. The FAA also disagrees that a flight following system is an acceptable alternative to a dispatch system or that dispatch systems are not needed for limited flight distances if there is adequate weather reporting facilities. The use of a dispatch system

planning, e.g. crew resource management, hazardous materials regulations. These subjects are just a small representation of the subject matter an aircraft dispatcher must know in order to make operational control decisions.

The FAA agrees with the comment that dispatchers are usually in a better position to review weather reports and forecasts than pilots hurrying to accomplish other postflight/preflight aircraft duties. Operational control issues are enhanced when both the pilot in command and the aircraft dispatcher are jointly responsible for the safe conduct of a flight. As several commenters point out the overall level of safety is enhanced when a dispatcher is available to assist and back up the pilots who already may have numerous responsibilities in addition to flying the airplane. Thus, while it may not be possible to pinpoint accidents that have actually been prevented by a dispatch system, there can be little doubt that the existence of a dispatch system contributes to the overall high level of safety of scheduled operations under part 121.

The FAA does not agree that use of dispatchers would lead to complacency on the part of the flight crewmembers. Section 121.663 states that for each domestic and flag operation, a dispatch release must be prepared based on information furnished by an authorized dispatcher. The pilot in command and an authorized dispatcher shall sign the release only if they both believe that the flight can be made safely. Dispatchers provide the necessary resources and expertise needed to review operational control issues.

In response to comments that in some companies "dispatch" functions are being adequately performed by individuals from three separate departments (operations, station managers, and company pilots), the FAA finds that operational control decisions can not be effectively made by three separate groups of individuals. The perception is that "whoever is available" makes the decision. For effective operational control, the dispatch process should be standardized and consistent.

In response to NATA's and others' comments on the nature of 10- to 19-seat certificate holders, the FAA finds that these certificate holders are not unique. The same situation currently exists for some part 121 certificate holders who are required to maintain dispatch systems.

In response to comments on the issue of limited areas of operation and short flight duration, the requirement for a dispatch facility is not based on distances, the type of aircraft, or weather patterns alone. It is the type of operation (scheduled) an air carrier is currently operating under that determines if dispatch systems are required. The role of the aircraft dispatcher in the operational control of aircraft provides an enhancement to safety that has clearly been established through years of operations by many air carriers in both domestic and flag operations. Continuous communications could be accomplished with HF radios or through satellite communications, both of which can be provided through vendors.

The FAA agrees with commenters that for some part 135 certificate holders, personnel will first have to acquire the necessary certificate and then complete required air carrier training requirements for dispatchers. The average dispatcher school curriculum lasts 5 weeks and usually includes instruction on both the written and practical tests. The FAA believes that some part 135 personnel already possess aircraft dispatcher certificates and that these personnel would be required to attend only the air carrier's dispatcher training program. Regardless, once an air carrier employs a certificated dispatcher, company training would have to be completed. That training would entail 40 hours of basic indoctrination, differences training, initial ground/transition of 30-40 hours (based on the type of aircraft), and a competency check (see § 121.422).

While the FAA does not agree with AACA's recommendation to "grandfather" dispatcher certificates to current flight followers or flight locating personnel, § 65.57 outlines a means of providing credit for previous experience in order to take the practical test. All dispatcher applicants must complete the appropriate written and practical tests before a certificate can be issued. The FAA agrees that training costs will be incurred to prepare current flight following or flight locating personnel to qualify for a dispatcher certificate, regardless of who pays for the training. Replacement personnel will be needed if the decision by the certificate holder is to send current employees to dispatcher training.

an applicant for an aircraft dispatcher certificate to pass a practical test with respect to any one type of large aircraft used in air carrier operations. Further, current practical test standards require dispatcher applicants to exhibit adequate knowledge of applicable aircraft flight instruments and operating systems. The scope of the practical test allows for turboprop aircraft and representative commuter operations. Practical tests are developed by the inspector conducting the test and can be designed for any type of large aircraft, including turboprop airplanes.

There is only one dispatcher written examination, the Airline Transport Pilot question book. The selection sheet has questions applicable only to dispatchers and not based on any particular make and model of aircraft. The FAA is considering developing written tests geared to commuter-type operations. However, the current written exam is valid in that it tests for areas common to all make and models of aircraft. The test requires knowledge of various subject areas, i.e. the ability to interpret weather information, interpret regulations, handle emergencies, compute weight and balance, etc.

The FAA disagrees with the ALPA recommendation to require dispatchers to receive 5 hours of operating experience in aircraft they will actually dispatch. Section 121.463(c) requires the dispatcher to satisfactorily complete at least 5 hours of operating familiarization in one of the types of airplanes in each group he is to dispatch. Section 121.400(b) includes all sizes of propeller-driven aircraft under group 1. Therefore, the FAA allows dispatchers to complete the operating familiarization in airplanes that are not exactly the same size or configuration as the ones they will dispatch.

V.G. Airports

Section 121.590 requires that no air carrier or pilot conducting operations under part 121 may operate an airplane into a land airport in the U.S. (or territory, etc.) unless the airport is certificated under 14 CFR part 139. Section 135.229 states that no certificate holder may use any airport unless it is adequate for the proposed operations.

Part 139 prescribes regulations governing the certification and operation of all land airports that are served by any scheduled or nonscheduled passenger air carrier operating airplanes with a seating capacity of more than 30 passengers. The FAA's authority is limited by statute (49 U.S.C. 44706(a)) to the 30-passenger-seat dividing line. The FAA, in conjunction with the Department of Transportation, has sought legislation that would grant the agency the authority to certificate any airport that receives scheduled service by a certificate holder utilizing airplanes designed for 10 or more passenger seats.

Accordingly, pending Congressional resolution of this issue, affected commuters are permitted to operate into other than part 139 certificated airports. If the FAA receives expanded authority over airport certification, it would propose rulemaking standards that are sufficiently flexible to cover the range of airports presently served under part 135.

Comments: Nine comments were received on this issue, with the major concern being that airport legislation currently being considered may include requirements that some communities may not be able to afford which would negatively affect air service to these communities.

The Las Vegas Department of Aviation comments that it has purchased and upgraded satellite airports in the Las Vegas area to help relieve the congestion at the McCarran International Airport. The commenter is concerned that the Clark County Department of Aviation, the Grand Canyon Tour Operators, and the Las Vegas Department of Aviation may not be able to afford additional airport upgrades. This would cause certificate holders that currently operate out of the non-certificated outlying airports to move their operations back to McCarran, thereby increasing traffic congestion and in-flight delays.

NATA and Commuter Air Technology concur with the FAA proposal to allow part 135 certificate holders to continue to operate with existing airport requirements, but are concerned about the airport expansion program. NATA prefers that no new airport legislation be adopted and that the proposed regulatory allowance for noncertificated airports be made permanent.

The American Association of Airport Executives (AAAE), RAA, Airports Council International-North America, and the National Association of State Aviation Officials would like the airport expansion issue referred to an ARAC committee before seeking federal legislation, to allow ARAC to develop a cost-effective response to NTSB recommendations that takes into account the difference between small airports that serve rural communities and large airports near major cities.

ALPA believes that the FAA should require commuters to operate out of part 139 certificated airports in the interest of one level of safety. ALPA recognizes that some airports in remote sites will not be capable of complying with all part 139 requirements. However, ALPA does not believe that an exemption should be provided for aircraft with passenger-seating capacities of 30 or less. Rather certificate holders that serve small airports should apply individually for an exemption or waiver.

Commuter Technology expresses concern that a revised part 139 may result in the application of airplane operator security regulations of part 108 and the airport security regulations of part 107 to air carriers using aircraft with a seating capacity of 30 or fewer seats. The commenter believes that the ARAC committee that is tasked with recommending revisions to part 139 should also be tasked with restricting or eliminating the applicability of part 107 to small airports. According to the commenter the application of parts 107 and 108 to commuter air carriers and the airports that serve them could have a radical effect on the economic viability of the air carriers and airports.

FAA Response: The FAA has assigned a task to the Aviation Rulemaking Advisory Committee (ARAC) to recommend the requirements in part 139 that should be applicable to airports covered under any expanded legislation that would give the FAA authority to certificate airports serving airplanes with less than 30 passengers. In the meantime, § 121.590 is adopted as proposed to allow affected commuters to use noncertificated airports. In making its recommendations ARAC is to consider accepted industry practices regarding airport safety, personnel available at these airports, costs associated with meeting these requirements (e.g. capital, operating, and maintenance costs), and the types of accidents/incidents that have occurred at these airports.

In response to the comment on security programs for airports and operators, no changes to parts 107 and 108 are necessary as a result of this rule because the requirements of those parts are already tailored to the size of the airplane.

V.H. Effective Date and Compliance Schedule

The FAA proposed an effective date of 30 days and a general compliance date of 1 year after publication of the final rule. The FAA stated in Notice 95-5 that a final rule, if adopted, would be published by December 31, 1995, and that within 1 year of that date, that is, by December 31, 1996, all affected certificate holders that have air carrier certification or operating certificates issued under part 135 at the time of publication would have completed the approval process and obtained new operations specifications giving them authority to conduct domestic or flag operations under part 121.

Under the proposal, persons who do not already have air carrier certificates or operating certificates who submit applications for or obtain air carrier certificates or operating certificates after 30 days after the publication date of the final rule would be required to obtain part 121 operations specifications; however, these new entrants would meet the same requirements as the affected commuters, i.e., delayed dates for retrofit of airplanes with certain types of equipment.

Proposed § 121.2(c) and § 135.2(c) allow for regular or accelerated compliance with part 121 requirements. Proposed §§ 121.2(g) and 135.2(g) also require an affected certificate holder to submit to the FAA a transition plan for moving from part 135 to part 121.

Comments: Eleven comments were received on this issue. Several commenters express a desire for an "incremental" or "phased" compliance schedule. Two commenters are concerned that the proposed "turnkey" recertification event is high risk with no early rewards or benefits.

of obtaining part 121 operations specifications.

Other commenters also state concerns about FAA's capacity to facilitate the transition process on schedule. Two commenters perceive a shortage of trained inspectors and suggest that the compliance date be extended if an adequate number of inspectors are not provided by mid year 1996. GAMA suggests a reevaluation of the implementation schedule of § 121.2(d)(1), citing a questionable number of aircraft certification service personnel to support the extensive design approval activity certain to occur. Another commenter expresses concern over the necessary type certification activity surrounding modifications and suggests that 1 year is an unrealistic compliance deadline given the current FAA Aircraft Certification Office backlog.

RAA is concerned that the population of FAA inspectors qualified to perform their duties under part 121 will not be able to respond to the new part 121 air carriers. According to RAA, FAA inspectors must be trained and qualified to help affected commuters achieve the transition. RAA recommends a "fill in the blanks manual" to achieve standardization among FAA regions and districts. If there is an insufficient number of qualified FAA inspectors, the 1996 compliance date should be delayed.

ASA proposes a standardized transition program including three elements: (1) a fill-in-the-blanks manual for transitioning carriers; (2) an automatic exemption and incremental approval process; and (3) time schedules from transitioning carriers submitted to FAA.

Mesa Airlines recommends pre-formal certification meetings with principal operations inspectors (POI's) at an early date to familiarize both parties with the certification process outlined in FAA Order 8400.10. According to Mesa, compliance statement development, individual operator transition plans, GOM (general operating manual) development, and formal certificate application should be scheduled for the spring of 1996 to allow adequate review by respective POI's. According to Mesa this would allow certificate holders to be running their commuter operations under part 121 rules by the summer of 1996. This in turn would allow for a start-up phase for part 121 dispatch operations and modifications to the requirements for proving runs as proposed in § 121.163 and would eliminate the necessity for formal initial operating experience (IOE).

There were several comments on specific compliance dates. ALPA is generally pleased with the compliance schedule, but states that the 4-year compliance date for the installation of pitot heat indication systems could be shortened to 2 years, given the relative ease of the modification. Fairchild Aircraft finds fault with the fact that a 2-year delay is provided for compliance with emergency exit handle illumination, but no delay is allowed for compliance with § 121.310(b)(2)(ii), which would require the replacement of exit signs on new commuter category airplanes. Mesa Airlines suggests that compliance with part 121 crew flight and duty limitations be changed to January 1, 1997.

FAA Response: The final rule has a 30-day effective date and a general compliance date of 15 months after publication of the final rule. The FAA is extending the general compliance date to be consistent with the compliance date in the training rulemaking referenced in section III. E, Related FAA Action. Also, the proposed delayed compliance dates for certain retrofit requirements have been modified in response to comments. The final rule also establishes delayed compliance dates for meeting the performance operating limitations of part 121 for certain airplanes. Compliance dates are provided in § 121.2. This section has been reorganized to separate compliance dates for 10-19 seat airplanes and those for 20-30 seat airplanes. Retrofit and performance requirements compliance dates are listed on Table 1 and discussed in the appropriate place in the preamble.

Because of the scope and significance of this rulemaking, the FAA has already begun planning for the implementation of the final rule. Training has been provided for inspectors who will be responsible for overseeing the transition of the affected commuters from part 135 to part 121 operations. Additional training planned for January 1996 will focus on the recertification and transition process. Extensive guidance material is being prepared to assist the inspectors during the transition process. Portions of this material will also be made available to the affected commuters.

transition plan should also show detailed plans for accomplishing activities and necessary retrofits for requirements with delayed compliance dates. The POI and the certificate holder will schedule the inspections necessary to show compliance with part 121 requirements. When the inspections are complete and the FAA has determined that the certificate holder can comply with part 121, the FAA will issue new operations specifications. Until the new operations specifications are issued, the existing operations specifications remain in effect. In any case the existing operations specifications expire on: (1) The date the new operations specifications are issued; or (2) 15 months from this date of publication, whichever is earlier. Affected certificate holders who want to comply with certain part 121 requirements in advance of being issued complete 14 CFR part 121 operations specifications could include in their transition plan a phased schedule including advance compliance for certain part 121 requirements, subject to their POI's approval.

Table 1—Summary of Modifications shows the compliance dates for certain retrofit and performance requirements for affected commuters. Many of these are required by the end of the basic 15-month compliance period. Affected commuters should be aware that by the specified date they must comply with all part 121 requirements, not just the ones listed on Table 1. Although the table includes additional items that were not listed in the table in Notice 95–5, no new requirements are involved. Not all requirements are in the table. The purpose of the table is to show the compliance dates for certain equipment and performance requirements that necessitate advance planning for purchasing and installation. Many of the delayed requirements apply to airplanes in the current fleet, while others apply only to newly manufactured airplanes.

It should also be noted that § 121.2(h) requires a certificate holder to comply with corresponding part 135 requirements, as applicable, in the interval between the effective date of this rule and when the certificate holder is in compliance with the part 121 requirements. In addition, the intent of § 121.2(h) is also included in specific sections that have delayed compliance dates.

This table does not apply to certificate holders currently operating under part 121. The passenger seating configuration numbers provided in the chart do not mean that the requirement applies only to that size airplane but rather that the requirement is new for that size airplane.

Table 1.—Summary of New Equipment and Performance Modifications for Affected Commuters

Effective date of required upgrade is as stated, measured from the rule publication date	Upgrade will apply to all airplanes including newly manufactured airplanes		Upgrade will apply to all newly manufactured airplanes
	Within 15 months	Within years (#)	After years (#)
1. Passenger Seat Cushion Flammability, 10–19 Pax §§ 121.2, 121.312(c)	Yes	15	
2. Lavatory Fire Protection, 10–30 Pax §§ 121.2, 121.308		2	
3. Exterior Emergency Exit Markings, 10–19 Pax § 121.310(g)			
4. Pitot Heat Indication System, 10–19 Pax §§ 121.2, 121.342		4	
5. Landing Gear Aural Warning, 10–19 Pax §§ 121.2, 121.289		2	
6. Takeoff Warning System, 10–19 Pax §§ 121.2, 121.293			4
7. Emergency Exit Handle Illumination, 10–19 Pax §§ 121.2, 121.310(e)(2)		2	
8. First Aid Kits, 10–19 Pax § 121.309(d)(1)(i)	Yes		
9. Emergency Medical Kits, 20–30 Pax § 121.309(d)(1)(ii)	Yes		
10. Wing Ice Light, 10–19 Pax § 121.341(b)	Yes		
11. Fasten Seat Belt Light and Placards, 10–19 Pax §§ 121.2, 121.317	Yes ¹		2 ¹
12. Third Attitude Indicator, 10–30 Pax:			

Turboprop §§ 121.2, 121.305(j)	Yes	15 ²	15 months ²
13. Airborne Weather Radar, 10–19 Pax § 121.357	Yes		
14. Protective Breathing Equipment, 10–30 Pax § 121.2		2	
§ 121.337(b)(8)—Smoke and fume protection			
§ 121.337(b)(9)—Fire fighting (20–30 only)			
15. Safety Belts and Shoulder Harnesses, Single point inertial harness, 10–19 Pax §§ 121.2, 121.311(f)			15 months
16. Cabin Ozone Concentration, 10–30 Pax § 121.578	Yes		
17. Retention of Galley Equipment, 10–30 Pax §§ 121.576, 121.577	Yes		
18. Ditching approval, 10–30 Pax §§ 121.2, 121.161(b)	Yes ³	15 ³	
19. Flotation means, 10–30 Pax §§ 121.2, 121.340		2	
20. Door Key and Locking Door, 20–30 Pax § 121.313(f) & (g)	Yes		
21. Portable O2, 20–30 Pax § 121.327–121.335	Yes		
22. Additional life rafts, 10–30 Pax § 121.339	Yes		
23. First Aid Oxygen, 20–30 Pax § 121.333(e)(3)	Yes		
24. Enroute radio communications, 10–30 Pax § 121.99	Yes		
25. Latex gloves, 10–30 Pax § 121.309(d)(2)	Yes		
26. Passenger information cards, 20–30 Pax § 121.571(b)	Yes		
27. Flashlights-additional for flight attendant and pilot, 10–30 Pax § 121.549(b)	Yes		
28. Flashlight holder for flight attendant, 20–30 Pax § 121.310(l)	Yes		
29. DME, 10–30 Pax § 121.349(c)	Yes		
30. Single engine cruise performance data, 10–30 Pax (required for determining alternates) § 121.617	Yes		
31. Performance, Obstruction Clearance, and Accelerate-stop Requirements, 10–19 Pax §§ 121.2, 121.157, 121.173(b), 121.189(c)	Yes ⁴	15 ⁴	

¹ In-service airplanes must comply within 15 months. They may use lights or placards. Newly manufactured airplanes must comply with seat belt sign requirements of § 121.317(a) within 2 years.

² Turbojet airplanes must comply within 15 months. Newly manufactured turboprop airplanes must comply within 15 months. In-service 10–30 pax turboprop airplanes must comply within 15 years.

³ Transport category must comply within 15 months. Nontransport category can operate for 15 years without ditching approval.

⁴ Commuter category airplanes must comply within 15 months. SFAR 41 and predecessor category airplanes must comply within 15 years.

VI. Discussion of Specific Proposals

In this section specific proposals for part 121 and part 119 are summarized, comments received are discussed, and the FAA's response to those comments is given. In section VII comments received on the costs and benefits of the proposed rule are addressed. The part 121 discussion, which applies to the affected commuters, appears first (section VI.A). Table 2 provides a listing of comparable sections in part 135 for each specific requirement discussed in this portion of the preamble. This is followed by a discussion of part 119 issues, which apply to all certificate holders under part 121 and part 135 (section VI.B).

—Contents and personnel		121.141.
—Airplane flight manual		
Subpart I—Airplane Performance Operating Limitations	135.365–.387	121.175–.197.
Subpart J—Special Airworthiness Requirements		121.217.
—Internal doors	135.87	121.285.
—Cargo carried in the passenger compartment	135 App. A	121.289.
—Landing gear aural warning device		121.291.
—Emergency evacuation and ditching demonstration.		
—New special airworthiness requirements (retrofit) and requirements applicable to future manufactured airplanes		121.293(a) (new).
—Ditching emergency exits		
—Takeoff warning system		121.293(b) (new).
Subpart K—Instrument and Equipment Requirements:		
—Third attitude indicator	135.149	121.305(j).
—Lavatory fire protection	135.163 (a), (h)	
—Emergency equipment inspection		121.308.
—Hand-held fire extinguishers	135.177(b)	121.309(b).
—First aid kits and medical kits	135.155	121.309(c).
—Crash ax	135.177(a)(1)	121.309(d).
—Emergency evacuation lighting and marking requirements	135.177(a)(2), 135.178(c)–(h)	121.309(e), 121.310(c)–(h).
—Seatbacks		
—Seatbelt and shoulder harnesses on the flight deck	135.117	121.311(e), 121.311(f).
—Interior materials and passenger seat cushion flammability	135.169(a)	121.312(b).
—Miscellaneous equipment		121.313 (c), (f), (g).
—Cockpit and door keys		121.313(f).
—Cargo and baggage compartments		121.587.
—Fuel tank access covers		121.314, .221.
—Passenger information		121.316.
—Instruments and equipment for operations at night	135.127	121.317, 121.323.
—Oxygen requirements		
—Portable oxygen for flight attendants	135.157	121.237–.335, 121.333(d).
—Protective breathing equipment (PBE)		121.337.
—Additional life rafts for extended underwater operations	135.167	121.339.
—Flotation devices		
—Pitot heat indication system		121.340.
—Radio equipment	135.158	121.342.
—Emergency equipment for operations over uninhabited terrain	135.161, .177, .178	121.345–.351, 121.353.
—TCAS		
—Flight data recorders	135.180	121.356.
—Airborne weather radar	135.152 (a), (b)	121.343.
—Cockpit voice recorders	135.173, .175	121.357.
—Low-altitude windshear systems	135.151	121.359.
—Ground proximity warning system (GPWS)	135.153	121.358
Subpart L—Maintenance, Preventive Maintenance, and Alterations:		
—Applicability	135.411(a)(2)	121.361.
—Responsibility for Airworthiness	135.413	121.363.
—Maintenance, preventive maintenance, and alteration organization	135.423, .425	121.365, .367.
—Manual requirements	135.427	121.369.

—Maintenance and preventive maintenance training programs	135.435	121.377.
—Maintenance and preventive maintenance personnel duty time limitations		
—Certificate requirements	135.435	121.378.
—Authority to perform and approve maintenance, preventive maintenance, and alterations	135.437	121.379.
—Maintenance recording requirements	135.439(a)(2)	121.380(a)(2).
—Transfer of maintenance records	135.441	121.380a.
Subpart M—Airman and Crewmember Requirements:		
—Flight attendant complement	135.107	121.391.
—Flight attendants being seated during movement on the surface	135.128(a)	121.391(d).
—Flight attendants or other qualified personnel at the gate		121.391(e), 121.417, 121.393 (new).
Subparts N and O—Training Program and Crewmember Requirements		121.400–121.459.
Subpart P—Aircraft Dispatcher Qualifications and Duty Time Limitations: Domestic and Flag Air Carriers		121.461–121.467.
Subparts Q, R, and S—Flight Time Limitations and Rest Requirements: Domestic, Flag, and Supplemental Operations	135.261–135.273	121.470–121.525.
Subpart T—Flight Operations:		
—Operational control	135.77, .79, 135.75, 135.69, .19	121.533, .535, 121.537, 121.547, 121.551, .553.
—Admission to the flight deck		121.557, .559, 121.565 (new).
—Emergency procedures	135.117, .127	121.571(a), 121.533, .573, 121.585.
—Passenger information	135.91(d)	121.574.
—Oxygen for medical use by passengers	135.121, 135.87, .122	121.575, 121.577.
—Alcoholic beverages		121.578(b).
—Retention of items of mass	135.93	121.579.
—Cabin ozone concentration		
—Minimum altitudes for use of autopilot	135.75, 135.23(q)	121.581, 121.586.
—Forward observer's seat		
—Authority to refuse transportation	135.87, 135.229, .217	121.589, 121.590.
—Carry-on baggage		121.617(a).
—Airports		
Subpart U—Dispatching and Flight Release Rules:		
—Flight release authority		121.597.
—Dispatch or flight release under VFR	135.211	121.611.
—Operations in icing conditions	135.227, .341, 135.345	121.629.
—Fuel reserves	135.209, .223	121.639, .641, 121.643, .645.
Subpart V—Records and Reports	135.65(c), 135.415(a)	121.701(a), 121.703 (a), (e).
—Maintenance log: Airplane	135.417	121.705(b).
—Mechanical interruption summary report	135.439(a)(2), 135.443	121.707, 121.709.
—Alteration and repair reports		
—Airworthiness release or airplane log entry		121.711, .713, 121.715.
—Other recordkeeping requirements.		

system between each airplane and the appropriate air traffic control facility, along the entire route. In the 48 contiguous States and the District of Columbia, the communications system between each airplane and the dispatch center must be independent of any system operated by the United States. This would be a new requirement for the affected certificate holders.

Section 121.101 requires each domestic and flag operator to show that enough weather reporting facilities are available along each route to ensure weather reports and forecasts necessary for the operation. For operations within the 48 contiguous States and the District of Columbia, these reports must be prepared by the National Weather Service. For other areas, a system must be approved by the Administrator. Section 135.213 has similar requirements, except that the pilot in command is allowed to use various other sources, including his own weather assessment, for VFR operations. This section also requires reports of adverse weather phenomena. The FAA proposed that affected certificate holders comply with part 121.

Section 121.107 requires each domestic and flag operator to have enough dispatch centers, adequate for the intended operation. This would be a new requirement for affected certificate holders, as discussed in section V.F., Dispatch System.

Comments: ALPA comments that the upgrade to part 121 represents a major improvement over part 135. ALPA also comments that Subparts E and F should be upgraded to require that each pilot have a set of approach and navigation charts rather than having to share a set. ALPA provides supportive information, such as an NTSB recommendation (A-95-35) for a similar requirement.

Several comments were received on the enroute radio communication requirements of § 121.99. ASA and RAA question the need for airline provided enroute radio communication capability for short-haul flights and request that the requirement be reconsidered. According to these commenters, the average enroute times for affected certificate holders is less than an hour. For such short flights there is little time during the enroute portion of a flight for company communication. The cost of installing company communications would be high and safety would not be diminished without company communication since the crew can be contacted through Air Traffic Control.

AACA points out that this would be a new requirement for affected commuters. Intrastate Alaskan operations now conducted under flag operations rules will be conducted under domestic rules and would be required to comply with the independent communications systems requirements. Because of low altitudes, VFR flight operations, and the lack of Remote Communications Outlet at many locations, maintaining communications will require construction of a large communications infrastructure. When operators in Alaska use flag rules, AACA interprets § 121.99 to not require the communications system be independent of any system operated by the United States.

FAA Response: The ALPA suggestion on requiring that each pilot have a separate set of navigation and approach charts is beyond the scope of this rulemaking; however, the FAA is planning to initiate a separate rulemaking on the issue.

Section 121.99 requires each domestic and flag air carrier to have a two-way radio communication system that is independent of any system operated by the United States. FAA flight service stations and air traffic control facilities that are currently providing radio communication service for certificate holders are used for the control of aircraft and were never intended to be used by individual certificate holders to relay information that is the certificate holder's responsibility, such as scheduling changes or weather information. Hence, an additional expense would be incurred by certificate holders required to contract for communication services through commercial services. However, it is believed that most part 135 certificate holders already have facilities and communications equipment that satisfy the dispatch requirements under part 121.

The FAA believes that there is a need for a two-way air-ground radio communication system that will ensure reliable and rapid communications over the entire route between each airplane and the appropriate dispatch office and between each airplane and the appropriate air traffic control unit. The need to show that each operator has a two-way radio system is not new. However, the requirement to have an independent

This subpart is similar to subpart E except that it applies to supplemental operations and prescribes flight following requirements. Under the proposal, this subpart would apply in cases where an affected operator uses an airplane that is also used in domestic operations to conduct a nonscheduled operation. On this issue, no comments were received and the final rule is adopted as proposed.

VI.A.3. Subpart G—Manual Requirements

Manual requirements: Contents and personnel: Under subpart G of part 121 certificate holders are required to prepare and keep current a manual containing policies, procedures, applicable regulations, and other information necessary to allow crewmembers and ground personnel to conduct the operations properly (see § 121.133 and § 121.135). While the requirements of parts 121 and 135 are similar, part 121 manual requirements contain a more extensive list of manual contents (§ 121.135). Under part 121 the manual or appropriate parts must also be furnished to more personnel, such as aircraft dispatchers and flight attendants, and made available to others, such as station agents. Notice 95-5 stated that the effect of these differences between compliance with part 121 versus compliance with part 135 would be significant for commuter operators. The proposal would require developing, producing, and distributing new manuals appropriate to part 121. In addition, § 121.137 requires the air carrier to issue a manual or appropriate parts to each crewmember and requires each crewmember to keep the manual up to date and have it with him or her when performing assigned duties. Part 135 does not require that flight attendants be issued a manual; however, it does require that any person to whom a manual is issued must keep it up-to-date (see § 135.21).

Comments: Fairchild Aircraft states that § 121.137 would require at least one copy of the manual specified by § 121.133 to be carried in the airplane and that this is a reasonable proposal that they fully support. Fairchild Aircraft also states that § 121.141(b)(2) contains a reference to “rotorcraft” which should be deleted.

ALPA states that the key to an efficient, safe airline operation can normally be found in the manuals developed by the airline. ALPA supports the FAA in adopting all facets of Subpart G. ALPA also states that § 121.135(b)(2) should be amended by removing, “in the case of supplemental air carriers and commercial operators,” so that the paragraph reads: “Duties . . . of the ground organization, and management personnel.” According to ALPA, the requirement to include in the manual duties and responsibilities of management personnel would no longer be applicable only to supplemental and commercial operators since proposed part 119 requires management personnel for all certificate holders.

One commenter states that § 121.133 should require compliance with the certificate holder’s manuals.

Metro International Airways states that the cost of new manuals would be excessive for small businesses and that an outline of procedures would be a more useful reference than a highly detailed manual.

FAA Response: All but one of the comments received regarding the manual requirements support the implementation of Subpart G of part 121. Only one comment regarding the costs associated with the manuals required by § 121.131 was received.

Additionally, the FAA has received requests from certificate holders that would like to begin the process of transition prior to implementation of the rule. This would allow those certificate holders to spread the cost of manual production and distribution over a longer period of time. The question of phased-in-implementation is not unique to this issue and is addressed elsewhere in this document.

The FAA agrees with ALPA’s suggestion to revise the wording of § 121.135(b)(2). This is not a substantive change from Notice 95-5 because § 119.65(e) also requires that manuals contain the duties and responsibilities of required management personnel. The FAA also agrees with Fairchild’s suggestion to delete the word “rotorcraft” from § 121.141(b)(2). These recommendations are appropriate. In the final rule §§ 121.135(b)(2) and 121.141(b)(2) are revised accordingly.

In response to the comment that § 121.133 should require compliance with the certificate holder’s manual, the holder of an air carrier certificate with operations specifications to operate under part 121

already meeting the manual requirements of part 135; this rulemaking requires an update of manuals and broader distribution of the manuals. An outline of procedures could be used as guidance in addition to the manuals or as part of a manual, but under current part 135 it would not suffice as meeting the manual requirements.

In the final rule § 121.133 has been revised to update the terminology.

VI.A.4. Subpart H—Airplane Requirements

For comments and FAA responses to the requirements in § 121.157, Aircraft certification and equipment requirements, see the discussion in section V. C., Aircraft Certification.

Single-engine airplanes. Section 121.159 prohibits operation of single-engine airplanes under part 121. No change to this prohibition was proposed since the FAA does not consider single-engine airplanes acceptable to part 121 standards. Under the proposal, this section was amended to delete an obsolete reference to § 121.9. No comments were received on this issue and the final rule is adopted as proposed. For a related discussion on the operation of single-engine Otters, see “Applicability: Alaska,” in section V.B.

Airplane limitations: Type of route. Section 121.161(a) requires that a two-engine or three-engine airplane except a three-engine turbine powered airplane must be within 1-hour flying time from an adequate airport at normal cruising speed with one engine inoperative, unless otherwise approved by the Administrator. Part 135 does not contain a comparable requirement; however, the FAA proposed that affected commuters would comply with the requirements of § 121.161(a).

Section 121.161(b) contains a separate requirement that (with some exceptions for certain older airplanes) no person may operate a land plane in extended overwater operations unless it is certificated or approved as adequate for ditching. The FAA proposed that affected commuters would also comply with the requirements of § 121.161(b). In Notice 95-5, the FAA invited specific comments on the potential impact of these proposals on operations in Alaska.

Comments: Several comments were received on the § 121.161(a) requirement to be within 1 hour of an airport with one engine inoperative. One commenter suggests that § 121.161 be rewritten to reflect today's environment, since no airport in the U.S. is more than 1 hour away for these commuter airplanes. The commenter also states that the rule should specify the requirements for two-engine operations over the water.

Fairchild and AIA both state that § 121.161(a) would require single-engine cruising speed data and this data is unlikely to be included in some Airplane Flight Manuals (AFM). The commenters also state that there appears to be no safety benefit and it will be difficult to show compliance. According to these commenters, the final rule should except 10-30 passenger seat airplanes.

Phoenix Air anticipates that its operations with a Grumman G-159 Gulfstream airplane would be disrupted due to the requirements of § 121.161, since they intend to start service between Honolulu and Midway Island. There are no airports that would be within 1 hour of the intended flight path.

Jetstream concurs with the requirement that airplane routes should be within 1 hour of an adequate airport.

Three comments were received on the certification ditching requirements of § 121.161(b). Fairchild and AIA note an apparent oversight in that the FAA did not propose to exclude part 23 Normal or Commuter Category airplanes from the ditching requirements of § 121.161(b).

AACA notes that several certificate holders fly affected aircraft on extended overwater routes in Alaska. Compliance with the part 25 ditching requirements would add certification costs, impose equipment weight penalties, and reduce payloads. According to the commenter, the FAA did not calculate these costs. The commenter supplies information indicating that costs to comply with the ditching requirements of part 25 are substantial.

provide engine-out cruise speed data. There are routes in areas outside of the contiguous U.S. that are more than 1 hour flying time (with one engine inoperative) from an adequate airport. In accordance with § 121.161(a), the Administrator may authorize a deviation from the requirement, if the operator can show that the 1-hour flight time limit is not necessary based on the character of the terrain, the kind of operation, or the performance of the airplane. Obtaining authorization to conduct extended range operations with two-engine airplanes is dependent upon many factors. Some of these factors are a type design review of the airframe system, a review of the in-service history of the airplane propulsion system, and an assessment of the certificate holder's maintenance and inspection program capability for extended range operations. Advisory Circular 120-42 provides the guidelines for this authority. Other rules provide the requirements for extended overwater routes.

The Douglas DC-3 and Curtiss C-46 airplanes excluded from § 121.161(b) were type certificated and manufactured before the present standards of part 25 were adopted. These aircraft were excluded because of their previous operating experience which showed, in some cases through actual ditchings, that these old airplanes could ditch satisfactorily. The Convair 240, 340, and 440 and Martin 404 airplanes were also type certificated before the present standards were adopted. They were excluded because tests conducted by the National Advisory Committee for Aviation showed they would have excellent ditching characteristics. Unlike current part 25, part 23 contains no standards for ditching approval. Unlike those older airplanes excluded in § 121.161, none of the part 23 airplanes have been shown to comply with any ditching standards. Contrary to the commenter's assumption, requiring part 23 airplanes used in extended overwater operations to meet the ditching certification requirements was not an oversight. In Notice 95-5 preamble, the FAA concluded that these requirements should be applied to the operations that would be moved from part 135 to part 121.

After considering the comments, the FAA has determined that until 15 years after the date of publication of the final rule a certificate holder may operate in an extended overwater operation a nontransport category land airplane type certificated after December 31, 1964, that was not certificated for ditching under the ditching provisions of part 25 of this chapter. Section 121.161(c) has been added accordingly.

Proving tests. Section 121.163 provides proving test requirements for part 121. In addition to aircraft certification tests, an aircraft to be operated under part 121 must have at least 100 hours of proving tests for an airplane not previously proven for use in part 121 operations, and 50 hours of proving tests for an airplane previously proven for use in part 121 operations. The number of hours may be reduced by the Administrator. Section 135.145 requires 25 hours of proving tests in addition to certification tests for certificate holders that operate turbojet airplanes or airplanes for which two pilots are required for operations under VFR if that airplane or an airplane of the same make and similar design has not been previously proved in any operations under part 135. Both §§ 135.145 and 121.163 require proving tests for materially altered airplanes. However, under § 121.163, proving tests apply to each airplane to be operated under part 121. Under part 135 proving tests apply to each aircraft or to aircraft of similar make and design. Part 121 also describes three types of proving tests. Under part 121, the initial operator of a type of airplane must conduct at least 100 hours of proving tests, acceptable to the FAA, which can be reduced in appropriate circumstances. Moreover, for each kind of operation (e.g., domestic, flag, supplemental) that a certificate holder conducts, 50 hours of proving tests are required, which are reducible in appropriate circumstances.

Comments: Six substantive comments were received. Comair and RAA concur with the requirement for an air carrier to demonstrate its ability to perform in accordance with part 121 and company procedures. However, Comair proposes that carriers currently conducting operations under part 121 and part 135 (split certificates) should not be required to conduct this demonstration. Carriers conducting part 121 and part 135 operations have previously proven their ability to conduct part 121 operations. If the requirement for dispatching is adopted, flight crewmembers will demonstrate their proficiency with the new system during their required line check.

RAA comments that proving flight hours should be reduced based on "experience and performance" factors. To facilitate a reduction in flight hours, the FAA should identify those specific procedures for

of excessive and unnecessary burden and cost.

Commuter Air Technology requests clarification concerning which modifications to specific aircraft would require 100-hour initial proving tests.

FAA Response: Section 121.163 has two main parts. Paragraph (a) prohibits a carrier from operating an aircraft type in scheduled service that has never been used in scheduled service until it has flown 100 hours of proving flights. These hours are in addition to any aircraft certification tests. For the purposes of this rulemaking, the FAA recognizes that the current commuter fleet has established a sufficient history of operations and does not intend to require the 100 hours of proving flights for aircraft currently being operated by those carriers affected by this rulemaking. Paragraph (b) of § 121.163 requires 50 hours of tests for the carrier to show that not only can it operate and maintain the aircraft, but also that it has the ability to conduct a particular kind of operation (i.e., domestic or flag) in compliance with the applicable regulatory standards.

The FAA agrees that carriers currently conducting operations under both part 121 and part 135 (split certificates) will be eligible to apply for a reduction of the number of hours required to conduct the demonstration required by paragraph (b). In regard to the comment that flight crewmembers that are new to part 121 operations will demonstrate their proficiency during accomplishment of a line check, the FAA does not agree that this could take the place of proving flights. The primary focus of proving flights is not simply to test the proficiency of flight crewmembers but to test the company's operational control procedures for the airplanes that will be operated in accordance with the requirements for a new kind of operation, i.e., flag or domestic. The FAA supports the idea that proving flight hours should be reduced based on "experience and performance" factors. The FAA has begun to identify those specific procedures for which proving flights would be required and to specify a realistic number of flights or flight hours which would be sufficient to demonstrate those procedures. This guidance to FAA inspectors will be provided in a revision to Order 8400.10.

The FAA agrees that proving tests will require an expenditure of the carrier's financial resources. Safety requires these proving tests to determine that an operator can conduct operations under part 121 safely, using new procedures, dispatches, etc. The FAA recognizes the experience level of air carriers operating under part 135 and, based on the carrier's experience with part 121, will provide FSDO inspectors with written guidance on approving deviations from the requirements of § 121.163. The FAA believes that proving tests are an essential part of the certification process and also provide the carrier with an opportunity to do some "dry-runs" before beginning revenue service under a completely new set of regulatory standards. The FAA's intent is to provide inspectors with the authority to provide deviations from the proving test requirements. FAA Headquarters will review each proposed reduction of proving test hours and will concur or not concur with the proposed number of hours for each affected commuter.

In response to Commuter Air Technology's request for clarification concerning which modifications to specific aircraft would require 100 hour initial proving tests, § 121.163(d) contains criteria for when a type of aircraft is considered to be materially altered in design.

VI.A.5. Subpart I—Airplane Performance Operating Limitations.

Subpart I contains airplane performance operating limitations that apply to all part 121 certificate holders; however, not every section in subpart I applies to every certificate holder. For example, §§ 121.175 through 121.187 apply to reciprocating engine-powered transport category airplanes and §§ 121.189 through 121.197 apply to turbine engine-powered transport category airplanes (with an exception for certain reciprocating-powered airplanes that have been converted to turbo-propeller-powered). Sections 121.199 through 121.205 apply to nontransport category airplanes.

In part 121 the term "nontransport category airplane" is currently used to refer to older airplanes like the Curtis C-46, that were type certificated before the transport category was established, i.e., the early 1940's. However, many airplanes type certificated over the last 20 years used by affected commuters (e.g., commuter category and SFAR 41 airplanes and predecessor categories), are also nontransport category.

proposed modifications (in Part 1 of Rules 25.3) except for part 21 performance and obstacle clearance and floor proximity lighting. (See later discussion of floor proximity lighting.)

Jetstream, RAA and ALPA support the overall proposals concerning the higher level of performance requirements. However, they join with Commuter Air Technology, Raytheon and an individual to point out that additional performance data/charts would need to be developed (for example: accelerate-stop and obstacle clearance data). RAA also recommends a 2-year time frame instead of the proposed 1-year performance compliance date.

Jetstream states that Notice 95-5, in conjunction with other proposed rules and changes, will introduce more weight to the aircraft. In addition to this, AC 120-27D, Aircraft Weight and Balance Control, will increase standard average passenger weights used for calculations. The combined effect is that these aircraft will no longer be allowed to carry 19 passengers due to reduced payload capacity. According to the commenter, the combined effect of the weight changes is about two passengers.

Jetstream and Raytheon comment that current FAA policy should be revised to allow manufacturers to increase the maximum takeoff weights for aircraft certificated under SFAR 41. They justify their comments by stating that the increase in maximum takeoff weight will provide a mitigation of the additional equipment weights incurred under this rulemaking.

One commenter states that better weight and balance control by the FAA is necessary because many operators are flying over maximum weight.

Fairchild, Jetstream, and AIA propose that the FAA incorporate the language of § 135.181(a)(2) into § 121.191, which would provide, in their view, a more conservative approach to one engine inoperative enroute operations. Jetstream also notes that there is no requirement for commuter airplanes to show Net En Route Flight Path data in their AFM's.

One commenter suggests that part 121 be written to specify the exact performance requirements for nontransport category airplanes to be included in their performance manuals so there would be no confusion with other FAA performance requirements.

Fairchild and AIA suggest deleting all references to "transport category" in §§ 121.189 through 121.197.

FAA Response: Section 121.135(b) requires that the manual contain methods and procedures for maintaining the aircraft weight and center of gravity within approved limits. Approved weight and balance control procedures are the only means for an operator/applicant to authorize the use of other than known weights for crew, passengers, baggage, or cargo. The weight and balance control program, including loading schedules and charts, are approved on operations specifications by the FAA. This program must be included in the operator/applicant's policies and procedures manual.

Section 121.189(c)(1) states, for turbine engine powered takeoff limitations, that "(c) No person operating a turbine engine powered category airplane certificated after August 29, 1959, may take off that airplane at a weight greater than that listed in the Airplane Flight Manual (AFM) at which compliance with the following may be shown: (1) The accelerate-stop distance must not exceed the length of the runway plus the length of any stopway."

The FAA agrees that new or additional performance data would need to be developed for certain airplanes, and that this data would need to be acceptable to the FAA Aircraft Certification Office and incorporated into the Airplane Flight Manual (AFM). At the present time, some AFM's (for Beech 99, certain Metroliners, and the Twin Otter) do not have accelerate-stop distance data, only accelerate-slow data. In order for the airplane operator to comply with § 121.189(c)(1), the operators would have to request an AFM supplement from the airplane manufacturers showing this required data. The FAA has not required the manufacturers to develop this data. If they have developed the data, it would still have to be certificated by the FAA as a revision to the AFM. If the manufacturer does not have accelerate-stop data, it will have to flight test, simulate, or analytically prove accelerate-stop distance data to the FAA. This process could be expensive to the operators who would pay for the manufacturer's support.

300 feet horizontally after passing the boundaries." AFM's for some older airplanes with seating capacity of 10-to-19 passengers do not have data to show the required climb gradient or the certification basis to clear obstacles after takeoff with an engine-out at a specified weight. As one commenter suggests, additional certification requirements would have to be identified in part 121 or in a new Appendix to 121 for nontransport category airplanes, except for the commuter category or SFAR 41, ICAO Annex 8 airplanes, before these airplanes could comply with § 121.189(d)(2) requirements.

As with accelerate-stop data, the FAA agrees that new or additional performance obstacle clearance data for certain airplanes would need to be developed, and that this data would need to be approved by an FAA Aircraft Certification Office and incorporated into the Aircraft Flight Manual. Raytheon estimates that to provide obstacle clearance data, testing would have to be done on all Beech 99 models and the price per each airplane for the new performance data would be \$63,000 (\$53,000 for the Beech 1300). This cost must be incurred by the manufacturer and then passed on to all the operators.

The FAA recognizes the significant problems in developing the necessary performance data for airplanes type certificated under a wide range of standards over the past 30 years, including part 23 (or its predecessor, part 3 of the Civil Air Regulations) normal category, plus additional standards in the form of special conditions, SFAR 23, SFAR 41C, or part 135, appendix A, or part 23 commuter category. Development of the additional performance data for airplanes certificated under older standards may be developed by conducting actual flight tests, data analysis, or any other methods acceptable to the Aircraft Certification Office. The FAA believes that the performance requirements of § 121.189(d)(2), obstacle clearance with an engine-out after takeoff, contribute to an increased level of passenger and crew safety.

The FAA also understands that the requirements for accelerate-stop and obstruction clearance may, in fact, remove certain airplanes from service in part 121. It may also affect the operational capability of some operators, depending on the location and height of obstacles, and may terminate air carrier service to some communities if airplanes are removed from service.

Because of the difficulty that affected commuters would face in meeting the part 121 performance operating limitations with their existing fleet, the FAA has decided to provide delayed compliance for these requirements. Subpart I has been amended to state different requirements for aircraft used by affected commuters that were certificated under different certification standards, as follows:

1. Airplanes certificated under commuter category can meet all of the airplane performance requirements of part 121 within 15 months of the publication of the final rule.

2. Airplanes certificated under SFAR 41 or earlier certification standards will be allowed to continue to comply with the part 135 Subpart I and other airplane performance operating limitations requirements for 15 years. The FAA anticipates that some of the SFAR 41 airplanes will be able to meet the part 121 requirements within the 15-year period so they have the choice of either continuing to operate under the performance requirements of part 135 for the 15-year compliance period or complying with the performance requirements of part 121 during the 15-year compliance period. Some of the airplanes certificated under earlier certification standards, such as under part 135, Appendix A, part 23, with special conditions, and SFAR's 23 and 41C, will probably never be able to meet the part 121 standards. For affected commuters operating these airplanes, the 15-year period allows the operators sufficient time to plan for and obtain replacement airplanes or to modify them.

Although the FAA encourages affected commuters to comply with the performance operating requirements earlier than 15 years after publication of the final rule, it is allowing that length of time to ensure that there will be an adequate supply of replacement airplanes available for purchase. The current rate of production of new commuter category airplanes is approximately 30 per year. But most importantly, if the FAA were to impose a shorter compliance period and affected commuters were not able to obtain new airplanes from manufacturers, they might replace their equipment with airplanes configured for fewer than 10 passengers. This airplane group is not covered by this rulemaking and has a higher accident rate than the 10-19 passenger airplanes. Therefore, an unintended effect of this rule could be an increase in the accident rate.

Section 121.191 requires that the AFM show a one-engine inoperative net en route flight path which would provide a positive slope at an altitude of at least 1,000 feet above the terrain (2,000 feet in mountainous terrain) within 5 statute miles of the intended track. Section 121.191 also provides for a net flight path that would allow continued flight from the cruising altitude to an airport clearing all terrain and obstructions. Section 135.181(a)(2) requires airplanes to maintain a 50 feet per minute rate of climb when operating at the MEAs or 5,000 feet MSL whichever is higher. It does not provide for the continuation of the flight below the MEA.

Section 121.191 has continuously provided for safe engine out en route operations while allowing some flexibility. The flexibility allows the certificate holder to calculate maximum weights for maintaining a constant engine out altitude, a continuous flight path drift down to an airport when an altitude cannot be maintained, and provides off airways direct routing engine out performance requirements. The FAA understands that net en route flight path data must be provided by the manufacturer; however, the FAA believes that part 121 air carriers deserve the additional flexibility of § 121.191 and that commuters adopting the § 121.191 requirements may gain a flexible benefit with a continued higher level of safety.

In response to comments, the FAA points out that Notice 95-5 proposed to remove the words "transport category" wherever they appear in subpart I.

In reviewing part 121 to resolve comments, the FAA noted that several formulas are printed incorrectly. In the rate of climb formula for reciprocating engine powered transport category airplanes certificated under parts other than part 4a of the Civil Air Regulations (CAR), the parentheses are misplaced. This formula has been printed correctly in the corresponding part 135 section of § 135.371 (a) and (c)(1). Also, in the rate-of-climb formula for transport category airplanes certificated under CAR 4a [§ 121.181 (a) and (c)(1) and § 121.183 (a)(2) and (c)(1)] it is not clear as printed that the subscript s_0 is to be squared. Appropriate corrections are made to both formulas.

VI.A.6 Subpart J—Special Airworthiness Requirements

Internal doors. Section 121.217 prescribes that in any case where internal doors are equipped with louvers or other ventilating means, there must be a means convenient to the crew for closing the flow of air through the door when necessary.

Comments: Raytheon Aircraft states that a new toilet installation for the 1900D has internal partitions with permanently open louvers. Compliance with § 121.217 would require Raytheon to redesign the partition louvers so a crewmember could leave his or her station to close the louvers when necessary or design the louvers for remote control closure.

FAA Response: Contrary to the commenter's assumption, the lavatory partition louvers in the commenter's airplanes would not have to be redesigned. As stated in § 121.213 (a) and (b), § 121.217 applies only to airplanes type certificated under Aero Bulletin 7A or part 04 of the Civil Air Regulations.

Cargo carried in the passenger compartment. Section 121.285 requires that cargo carried in passenger compartments must be stowed in a fully enclosed bin or carried aft of a bulkhead or divider and properly restrained. Section 135.87 allows certificate holders to carry cargo in an approved cargo compartment instead of a fully enclosed bin and to carry restrained cargo anywhere in the passenger compartment if it is restrained by a net that meets the requirements of § 23.787(e). The FAA proposed to amend § 121.285 to add an exception for commuter category (and predecessor) airplanes that would have the effect of allowing cargo to be carried in the passenger compartment as it is today under part 135.

Comments: AACA, an association of Alaskan air carriers, fully supports the proposal.

FAA Response: The final rule includes provisions from § 135.87 that have been moved into § 121.285 for nontransport category airplanes type certificated after December 31, 1964.

Landing gear aural warning device. Section 121.289 contains a requirement for a landing gear aural warning device for large airplanes. At present this section applies to any airplane with a maximum

AACA notes that the FAA did not prepare a cost analysis for this proposal, other than to show that the cost would be "minimal." AACA shows that various manufacturers' comments on similar proposals have identified substantial administrative, engineering, installation, and ongoing maintenance cost. However, AACA also notes that, in this case, Fairchild Aircraft believes that the landing gear aural warning can be installed without undue cost or difficulty.

AACA also states that once an item is installed, there are many other things that must be done that involve cost. Cost items identified are: revisions of the certificate holder's training program, normal and emergency procedures, maintenance MEL's and other items need to be amended to reflect the change from a visible lighted warning device to an aural device. According to AACA, compliance costs add up incrementally to substantial cumulative cost and that the FAA fails to account for.

FAA Response: Even though part 23 requires an "aural or equally effective device," the FAA is not aware of airplanes where the "equally effective device" was accepted as the only warning for the landing gear warning. The reason for not accepting such devices includes the consideration of pilot's work load during the landing phase of flight and the need for the warning to attract pilot attention under such conditions. No proposed lighted device, by itself, has been found acceptable to provide the needed warning for this flight condition. Therefore, the FAA is amending § 121.289 as proposed to require installation of a landing gear aural warning device within 2 years of the publication of this final rule. However, the FAA believes that all affected airplanes already have an aural warning system.

Emergency evacuation and ditching demonstrations. Section 121.291 contains requirements for conducting demonstrations of airplane evacuation and ditching procedures. The FAA requires these demonstrations upon introduction of a new type and model of airplane into passenger-carrying operations. For airplanes with a seating capacity of more than 44 passengers, an actual evacuation demonstration must show that the full capacity of the airplane and the crewmembers can be evacuated within 90 seconds. Also, for airplanes with more than 44 passenger seats a partial demonstration is required under one of the circumstances described in § 121.291(b). Demonstrations have not been required for airplanes with fewer than 44 passenger seats.

Under § 121.291(d) any certificate holder operating or proposing to operate one or more landplanes of any size in extended overwater operations must conduct a simulated ditching in accordance with Appendix D to part 121. The purpose of the ditching demonstration is to show that the certificate holder's ditching training and procedures for a new type and model of airplane are satisfactory. The simulated ditching does not specifically require the use of flight attendants; the FAA proposed to apply this rule to any affected commuter operator who conducts extended overwater operations, whether or not flight attendants are used in the operation. The FAA proposed to apply this provision to the affected commuter operators only when a new type and model of airplane is introduced into the certificate holder's operations after the effective date of the final rule. This requirement does not apply to the current fleet.

The FAA proposed to amend § 121.291(b) to clarify that the partial demonstration procedures apply only to airplanes with more than 44 passenger seats.

Comments: With respect to partial evacuation, one commenter states that the proposed rule would reduce the safety requirements for commuters because the evacuation procedures under part 121 do not apply to airplanes with less than 44 seats and that § 23.803 requires a demonstration for commuter category airplanes. One commenter states that § 121.291(b) does not indicate if the requirement applies to aircraft with more than 44 seats or all aircraft.

Two commenters recommend clarifying the rule language for the ditching demonstration in § 121.291(d) to make the FAA's intent clear. The commenters say that the current language does not properly communicate the fact that a ditching demonstration would be required only if an airplane is a new make/model for a particular certificate holder's fleet.

FAA Response: Parts 25 and 121 currently require emergency evacuation demonstrations for transport category airplanes with more than 44 passenger seats. These demonstrations are required in addition

specific detail design requirements that transport category airplanes must meet. There will be no reduction in safety because transport category airplanes will still be required to comply with the same specific detail design requirements and the part 23 requirement for an evacuation demonstration will remain unchanged. As proposed, § 121.291(b) is amended to make clear that it, as well as § 121.291(a), only applies to airplanes with more than 44 passenger seats.

The FAA agrees that the language in § 121.291(d) for the ditching requirement does not clearly state that it applies to the affected commuters only if an airplane is a new type and model introduced after they began operations under part 121. Therefore, clarifying language is added to § 121.291(d).

New special airworthiness requirements (retrofit) and requirements applicable to future manufactured airplanes:

- *Ditching emergency exits.* Section 25.807(e) contains requirements for ditching emergency exits in transport category airplanes. The ditching exits for transport category airplanes with 10 or more passenger seats must meet at least the dimensions of a Type III passenger emergency exit (20 inches wide by 36 inches high). It should be noted that transport category airplanes are required to have ditching exits meeting those criteria regardless of whether the airplane is approved for ditching and used in extended overwater operations. If ditching approval is requested by the applicant, it also must be shown that the required life rafts can be launched successfully through the ditching emergency exits.

Part 23, as recently amended by Amendment 23-46 (59 FR 25772; May 17, 1994), now contains requirements for ditching exits; however, all of the normal or commuter category airplanes currently in service were type certificated before that amendment became effective. The FAA proposed to amend part 121 (proposed new § 121.293(a)) to require ditching exits for nontransport category airplanes type certificated after December 31, 1964. Unlike those required for transport category airplanes, the ditching exits would only have to be as large as those currently required by § 23.807(b) (19 inch by 26 inch ellipses). The FAA proposed that compliance would be required 2 years after the publication date of the final rule. The proposed requirement would not entail adding new exits. The overwing exits of most airplanes type certificated under part 23 would probably qualify as ditching exits. Part 25 airplanes intended for non-part 121 transportation sometimes comply by providing a sheet metal dam that can be installed in the passenger entry doorway. If it is necessary to consider a floor-level exit as a ditching exit in a nontransport category airplane, a similar sheet metal dam could be provided.

Comments: Commuter Air Technology, a modifier of business airplanes for commuter airline service, states that its product has overwing exits that would be usable anytime the airplane was floating. The commenter questions whether it would be necessary to conduct a \$5,000 type certification effort to qualify those exits as ditching emergency exits. NATA, an association representing certificate holders of 10- to 19-passenger-seat airplanes, recommends rescinding the proposal and asserts that the cost of compliance would be extremely high. The commenter offers no specific details concerning costs, but does note that de Havilland DHC-6 Twin Otters have experienced only three ditchings in 17 million flight hours.

FAA Response: The comments received have some validity. The majority of the current commuter fleet, at least those for which ditching exits were not substantiated for certification, includes such airplanes as the Beechcraft 99 and 1900 and Fairchild airplanes with low wings and overwing exits. It is likely that these exits would qualify as ditching emergency exits. However, they would have to be tested. That would also be true of all other low-wing part 23 normal or commuter category airplanes that would be operated under part 121.

In addition to the low-wing models, there are also three high-wing normal or commuter category airplane models. These are de Havilland DHC-6, Twin Otters, which are by far the most numerous of the high-wing models, and the Dornier 228 and Britten Norman BN-2A Mk III Trislanders. (This, of course, refers to landplanes. Many Twin Otters operate as seaplanes on floats.) Typically, high-wing landplanes come to rest in the water on the fuselage with one wing tip in the water.

likely that they would float the same way that the Series 300 airplane did, and that their exits would also meet the ditching emergency exit requirements.

Most of the part 23 commuter and predecessor normal category airplanes are low-wing airplanes with overwing exits that would comply with no further substantiation required. The vast majority of the airplanes would, therefore, not be affected by the requirement in regard to either cost or safety benefit because they already comply. In view of the successful ditchings that have occurred with high wing airplanes to date, the FAA has decided not to adopt § 121.293(a) as proposed.

- *Takeoff warning system.* Section 25.703 requires an aural warning to the flightcrew at the beginning of the takeoff roll when the wing flaps, leading edge devices, wing spoilers, speed brakes, and longitudinal trim devices are not in a position that would allow a safe takeoff. Part 23 does not require a takeoff warning system (although a requirement for such a system is proposed in Notice No. 94-21, 59 FR 37620, July 22, 1994); in addition, part 23 airplanes typically do not have multiple types of devices. Accidents have occurred on transport category airplanes when the flightcrews initiated takeoffs when the airplanes were not in the proper configurations for takeoff. The FAA proposed that airplanes manufactured after a date 4 years after the publication date of the final rule would be required to have a takeoff warning system as required by § 25.703. However, a warning system is not required for any device for which it can be demonstrated that takeoff with that device in the most adverse position would not create a hazardous condition (§ 121.293(b)).

Comments: One commenter notes that a takeoff warning would not be required under § 25.703 if it is demonstrated that a takeoff with that device in the most adverse position would not create a hazardous condition. This commenter questions how one can measure the effect of these improper settings when compounded by other unfavorable conditions, such as weight and balance mistakes, but does not express support or opposition to the proposal.

Commuter Air Technology discusses the longitudinal trim and flap systems on its airplanes. The commenter notes that the pilot can visually verify that the flaps are in correct 40° takeoff setting from the cockpit. The commenter also states that the longitudinal trim is manual and has center marking visible from both the pilot and co-pilot positions. The commenter's position is that the additional cost of such a system is not warranted.

FAA Response: The first commenter correctly notes that a takeoff warning system is not required for any devices if it is demonstrated that takeoffs with that device in the most adverse position would not cause an unsafe condition. While the FAA agrees that with some airplanes it is possible to verify visually flap positions and manual trims and that there is a cost to install warnings, the FAA has determined that for safety reasons, an aural warning is needed under the conditions described.

In considering these comments, the FAA notes that all of the in-service airplanes have demonstrated, by their service histories, that there is no device position that would cause an unsafe condition and therefore that there would be no need for installation of additional takeoff warning devices. While proposed § 121.293(b) (now § 121.293) does not apply to any in-service airplanes affected by this rule, the requirement for airplanes manufactured 4 years after the publication date of this rule is retained in the final rule to ensure that future airplanes are covered.

VI.A.7. Subpart K—Instrument and Equipment Requirements.

Instrument and equipment requirements are contained in part 121, subpart K, and part 135, subpart C. The requirements are in addition to the airplane and equipment requirements of part 91. The discussion below emphasizes all new or revised equipment requirements except for major equipment such as FDR's and airborne weather radar, which are previously discussed in the "Major Issues" section of this document.

Notice 95-5 proposed to require that commuter operators comply with part 121 airplane and equipment requirements except in areas that were specifically discussed.

Comments: Most of the commenters on this issue oppose the requirement, primarily because of the cost.

According to RAA, part 121 does not include an equivalent to § 135.163(h), which requires dual attitude indicators which are powered by two different and independent power sources for nontransport category airplanes. RAA recommends requiring the third attitude indicator only for new production large airplanes, deleting the proposed retrofit requirement, and incorporating § 135.163(h) into part 121 for nontransport category airplanes. RAA also recommends considering an equivalent means of compliance for large nontransport category airplanes, such as "Situation Awareness for Safety" devices.

Raytheon Aircraft and Mesa state that the requirement is excessive for airplanes that already have two attitude indicators, each supplied by a separate source of power. Raytheon and Big Sky are concerned that the requirement might necessitate a redesign of the instrument panel.

Twin Otter International believes the requirement would be extremely costly with little safety benefit. According to Twin Otter, even if the attitude indicator were lost, the airplane would have adequate performance and information to be operated without a third attitude indicator.

Commuter Air Technology concurs with the proposal for all aircraft operated under part 121 and points out that § 135.149 currently requires a third indicator only for turbojet aircraft.

United Express states that the FAA supporting data for a third (independently powered) attitude gyro is based on turbojet accident/incident research and not on turbopropeller accident/incident data. According to the commenter, until the FAA can substantiate that this will prevent accident recurrence in turbopropeller aircraft, it should not be required. The commenter states that some aircraft, such as the commenter's fleet of Jetstream turboprops, have a third attitude gyro powered by the aircraft battery system. No information has been provided, that the commenter is aware of, suggesting that an independent power source will improve safety or accident statistics in turbopropeller aircraft.

FAA Response: Section 121.305(j) currently requires a third attitude indicator on large turbojet-powered and large turboprop-powered airplanes. Part 135 requires a third attitude indicator only for turbojet powered airplanes.

The FAA's intent as stated in Notice 95-5 was to require all affected airplanes to comply with the equipment requirements of § 121.305 including the requirement for a third attitude indicator. The notice did not contain amendatory language to § 121.305(j); however, to be consistent with the FAA's stated intent, the rule language has been developed to include the intended airplanes and to provide a compliance date.

In response to RAA's comment that part 121 does not have an equivalent to § 135.163(h), which requires two independent sources of energy, each of which is able to drive all gyroscopic instruments, such an equivalent appears in § 121.313(e).

The FAA does not agree with the commenter that a third attitude indicator is excessive for airplanes that have two attitude indicators or that there could be little safety benefit. The final rule requires a third attitude indicator in all turbojet powered airplanes and all turbopropeller powered airplanes. However, the FAA recognizes that retrofit installation of a third attitude indicator imposes a burden which may require a redesign of the instrument panel. Therefore, as with certain other requirements, the final rule provides for a 15-year compliance date for turbopropeller powered airplanes having a passenger seating configuration of 10 to 30 seats that were manufactured before 15 months after the date of publication of this final rule. In effect, this allows operators to decide whether to retrofit these airplanes or phase them out. Turbojet airplanes and newly manufactured turboprop airplanes must comply within 15 months.

Lavatory fire protection. Section 121.308 currently requires lavatory smoke detection systems, or equivalent, and automatically discharging fire extinguishers in lavatory receptacles for towels, paper, or waste for passenger-carrying transport category airplanes. The FAA proposed to apply the requirements of § 121.308 to airplanes formerly operated under part 135 that are equipped with lavatories. Section 121.308 would be amended to delete the references to transport category. The proposed compliance section,

estimated cost of compliance is \$2,500 per airplane while Jetstream estimates \$4,000 per airplane.

Comair believes compliance would amount to \$2,500 and 20 pounds per airplane. The commenter asserts that compliance is not justified for airplanes with 20 to 30 passenger seats due to the small size of the cabin, proximity of a trained flight attendant with a portable fire extinguisher, and the present smoking ban on domestic flights.

Commuter Air Technology asks whether the proposed requirement would apply to some of their products that have a side facing toilet separated from the cabin only by a curtain.

Jetstream states that there is no evidence to support the introduction of fire suppression of toilet receptacles on commuter aircraft. According to the commenter, the lavatory receptacles are already designed to contain a fire within the compartment; and, due to the small cabin size of those airplanes, the lavatory is readily accessible to the crew if the need to suppress a fire does occur. The commenter estimates a cost of \$4,000 per airplane. Nevertheless, the commenter does support requiring new aircraft to comply.

FAA Response: The FAA does not agree with the commenter's suggestion that installation of smoke detectors should be done within 6 months and fire extinguishers within 1 year of the publication of the final rule. This would not allow sufficient time for compliance.

The comments received do not contradict the FAA's understanding that few, if any, of the airplanes with 10 to 19 passenger seats are equipped with lavatories. The primary impact of the proposed requirement for lavatory smoke detection and fire extinguishment, therefore, would be on airplanes with 20 to 30 passenger seats presently operated under part 135. (Any such airplanes currently operated under part 121 are already required to comply.)

Contrary to one commenter's belief, the present smoking ban on domestic flights does not eliminate the need for lavatory smoke detection and fire extinguishment. On the contrary, the smoking ban could increase the temptation for some passengers to smoke illicitly in the lavatory and thereby increase the possibility of a fire originating in that compartment. The presence of a smoke detector serves as a deterrent to illicit smoking as well as a means of warning when it does occur.

Contrary to the commenter's belief, the presence of a flight attendant in the cabin would not compensate for the lack of a lavatory smoke detector and fire extinguisher. A lavatory is designed with an effective ventilation system to preclude normal odors from entering the cabin. In the absence of a smoke detector, the ventilation systems also precludes early detection of illicit smoking or a fire by persons in the cabin. In addition, the materials typically contained in the waste receptacles are highly flammable and could burn out of control quickly if there were no automatically discharging extinguishers. It is possible that a flight attendant would not know the fire exists until it has grown to catastrophic proportions.

The cost estimates provided by two commenters appear to be based on a misunderstanding concerning the qualifications of a required lavatory smoke detector. Such detectors serve primarily to enhance the capability of crewmembers to detect lavatory fires visually. They are, therefore, not required to meet all of the performance and environmental requirements applicable to primary detectors used in isolated compartments, such as cargo compartments. Anything that meets the ordinary dictionary definition of a lavatory would be covered by this requirement.

Therefore, because the adverse service experience that prompted the adoption of § 121.308 applies equally to any airplane, large or small, with a lavatory and because the commenters' cost estimates are obviously based on a misunderstanding of the required smoke detector qualification, the FAA is adopting this requirement in substance as proposed. The final rule has been revised to provide operators 2 years from the date of publication to comply with the lavatory smoke detector system and fire extinguisher requirements. In addition, the rule states that operators of 10- to 19-seat airplanes that have a lavatory must have a smoke detector system or equivalent that provides either a warning light in the cockpit or an audio warning that can be readily heard by the flightcrew. This will accommodate airplanes that do not have flight attendants.

held fire extinguishers aboard airplanes. Part 121 requires at least two of the fire extinguishers to contain Halon, or an equivalent, and mandates placement of the fire extinguishers, while part 135 does not. In Notice 95-5, the FAA proposed that affected commuters comply with the part 121 requirements for fire extinguishers and that § 121.309(c)(7) be amended to require that at least one of the fire extinguishers in the passenger compartment contain Halon or the equivalent. No comments were received on this issue and the final rule is adopted as proposed.

First aid kits and medical kits. Section 121.309(d) requires that both approved first aid kits and approved emergency medical kits be carried on board passenger-carrying airplanes. The medical kits are intended to be used only by medically qualified persons, such as doctors, who may be on board the airplane. Section 135.177(a)(1) requires first aid kits to be carried on board airplanes with more than 19 passengers.

The FAA proposed that first aid kits be required for all airplanes with more than 9 passenger seats operating under part 121 and medical kits be required for airplanes that are required to have a flight attendant. The FAA stated in Notice 95-5 that, after review of the comments, the FAA might decide to require a medical kit for all 10-19 seat airplanes.

In Notice 95-5 the FAA pointed out that affected commuters would have to comply with a recent rule requiring disposable latex gloves for first aid kits and medical kits.

Comments: Six commenters disagree with the proposed requirement to have first aid kits on 10- to 19-seat airplanes. Most of the commenters cite lack of space and the lack of necessity for the equipment. Commenters believe that the first aid kit would not provide enough of a medical benefit to justify its cost. Two of these commenters oppose the addition of latex gloves as part of the first aid kit. One commenter believes that the equipment would place additional liability on employees. One commenter concurs with both proposed requirements.

Two commenters provide additional cost information for first aid kits. One of the commenters estimates \$1,500 per airplane and the other estimates \$1,500 without specifying the number of entities involved (i.e., airplane(s) or fleet).

AACA agrees with the requirement for first aid kits on all commuter airplanes whether a flight attendant is available or not. According to the commenter, regardless of the size of the airplane, in-flight emergencies could occur and a first aid kit may be needed. In the absence of a flight attendant, a crewmember or passenger could use the first aid kit. The commenter also estimates costs of \$4,359 for Alaskan commuter air carriers in the first year and \$436 each year thereafter to meet the requirement, but there is no explanation of the detail.

Four commenters disagree with the required medical kits on 20 to 30 seat airplanes. These commenters cite lack of space and the lack of necessity for the equipment. Three commenters argue that medical kits should not be required on airplanes with less than 30 seats due to the lack of trained personnel and the low likelihood that a medical professional would be on board. One commenter believes that the equipment would place additional liability on employees. One commenter concurs with the proposed requirements.

One commenter provides a cost estimate of about \$2,000 per airplane for the medical kit requirement. However, the cost estimate is not supported by any documentation.

FAA Response: The FAA maintains that certain of these requirements are necessary to enhance safety. The ability to respond in the early stages of a medical emergency is critical and could save lives in the event of an in-flight injury or an accident. Additionally, the FAA maintains that latex gloves as were required by a 1994 rule change (59 FR 55208, November 4, 1994) should be included in these first aid kits because they guard against transmission of disease through spilled blood. In sum, no commenter provides any compelling reason to eliminate the first aid kit requirement, especially considering that these airplanes often operate in remote areas where medical assistance may not be available. The FAA has determined that emergency medical kits will be required for airplanes requiring a flight

Under part 135 the crash ax is to be accessible to the crew but inaccessible to the passengers during normal operations. The FAA proposed in § 121.309(e) to require a crash ax for each airplane that has a flight deck separate from the passenger cabin and a lockable door.

Comments: One commenter disagrees with the FAA assertion in Notice 95-5 that the crash ax is useful only for egress from the flight deck to the cabin in the event of an emergency. The commenter says that the Airplane Flight Manual of one popular 19-seat commuter airplane suggests that preparation for certain gear-up landings include opening an overwing exit inflight, because even relatively minor distortion of the fuselage in a small airplane can render exits unusable. Thus, the crash ax could be used for prying open an exit.

Raytheon states that if a key lock is required as proposed on lockable doors in 10- to 19-seat airplanes, then a crash ax would be required. The commenter states that removal of the door would eliminate the requirements for a lock and a crash ax.

A third commenter supports the proposal as written in Notice 95-5 to require a crash ax only in airplanes that have a separate flight deck with a lockable door.

FAA Response: The primary purpose in requiring that a crash ax be carried is to allow emergency egress after an accident if airplane exits are unuseable. However, the FAA agrees with commenters that there could be other uses for the ax including egress of the cockpit crew.

After considering the comments and reviewing the proposed requirement, the FAA has determined not to require crash axes on nontransport category airplanes type certificated after December 31, 1964, primarily because these airplanes are not required to have a lockable door. The FAA has determined that the lockable doors that exist in nontransport category airplanes type certificated after December 31, 1964, are frangible and obviate the need for a crash ax on the flight deck. Also carrying a crash ax in these airplanes creates a security risk since the ax would not be inaccessible to passengers.

Emergency evacuation lighting and marking requirements. Section 121.310(c), by referencing § 25.812(e), requires emergency evacuation lighting for passengers when all sources of illumination more than 4 feet above the floor are totally obscured. This requirement applies to all transport category airplanes regardless of how many passenger seats they have. There is no corresponding requirement in part 23 or in part 135 for airplanes having a passenger-seating configuration of less than 20 seats.

Section 121.310(d) for emergency light operation requires that each light required by paragraphs (c) and (h) must be operable manually and must operate automatically from the independent lighting system. As proposed, these requirements would apply to affected commuters. In § 121.310(d)(2)(i) each light must be operable manually both from the flightcrew station and from a point in the passenger compartment that is readily accessible to a normal flight attendant seat.

Section 121.310(e) requires that an exit operating handle may not be used if its brightness decreases below a specified level. Section 135.178(e) contains an identical requirement for airplanes having a passenger seating configuration of more than 19 seats. Under the proposal the requirement would also apply to airplanes with a passenger configuration of 10-19 seats.

Section 121.310(f) contains standards for access to various exit types that presently apply only to transport category airplanes. Section 135.178(f) is identical to § 121.310(f) for airplanes having a passenger configuration of more than 19 seats. The FAA proposed to amend § 121.310(f) to exclude nontransport category airplanes.

Section 121.310(g) (and its parallel requirement in § 135.178(g) for more than 19 passenger seat airplanes) requires emergency exits to be marked on the outside by a 2-inch band contrasting in color with the surrounding fuselage. Most airplanes with a passenger-seating configuration of less than 20 seats operating under part 135 are already required to meet this requirement and, for those that do not, compliance with this requirement as proposed would merely require painting the bands around each exit.

marking requirement discussed above, proposed a compliance date 2 years after the publication date of a final rule.

Comments: Sixteen comments were received on proposed § 121.310. All commenters oppose the proposal to retroactively require any additional emergency exit signs or emergency lighting on 10-to-19 passenger seat commuter airplanes.

Several commenters state that the cost of retrofitting in-service airplanes with an emergency lighting system would be much more expensive than the FAA expected when the notice was prepared.

Six commenters note the size of the cabin area of these airplanes and that no person is seated more than 8 feet (or two or three rows) from an exit. One of these six also notes that no person is more than 12 feet from two exits.

Four commenters note that an emergency evacuation demonstration is required for the certification of commuter category airplanes and that these demonstrations have shown that the airplanes can be evacuated, under conditions of total darkness, in less than 90 seconds. Two other commenters note that there is no known service history or adverse accident data related to commuter operations to support the need for this proposal. Therefore, all six of these commenters believe there is no justification for the proposal and each of them recommends that it be withdrawn.

One commenter believes that the current briefing on exit locations and their use is sufficient and that no further action is needed. Two commenters believe that the requirement in § 121.310(c)(3) to show compliance with § 25.812(e) does not add any safety to these airplanes. They point out that the height of the ceiling in their airplane is only 4¾ feet high and question the need to comply with the provision of § 121.310, which requires compliance with § 25.812(e). Section 25.812(e) requires escape path markings for passenger guidance, "when all sources of illumination more than four feet above the cabin aisle floor are totally obscured." According to commenters, with a ceiling height of only 4¾ feet, it is likely that the required exit markings are located less than 4 feet above the floor and that compliance with § 121.310(c)(3) is not necessary. Another commenter believes that the requirement in § 25.812 for emergency lighting to operate for 10 minutes is not needed for these airplanes. The commenter points out that the required emergency evacuation time for these airplanes is much less than 10 minutes and that this requirement should be adjusted accordingly. One other commenter suggests that flashlights be made available. Finally, two commenters acknowledge that emergency lighting may enhance safety; however, they also believe that this enhancement in safety can be provided by a lighting system that is less expensive, less complex, and much lighter than the one envisioned by § 121.310. Accordingly, they provide some suggestions for such a system.

Embraer, a foreign manufacturer of transport category airplanes, believes that § 121.310(f) should also be amended to exclude smaller (e.g., 20 to 30 passenger) transport category airplanes as well as nontransport category airplanes. The commenter believes that a passenger seat would have to be removed from its product for operation under part 121 if smaller transport category airplanes were not also excluded from this section.

AACA supports the proposed amendment to § 121.310(g).

The only other comment received concerning this issue was from an individual who requests resolution of the issue of whether the 2-inch wide contrasting band has to be on the fuselage surrounding the emergency exit or on the exit itself.

FAA Response: Section 23.803 does require an emergency evacuation demonstration, as noted by the commenters; however, the demonstration is required primarily to compensate for the differences in evacuation design features (e.g. aisle width, exit size, etc.) required by part 23 and those of part 25. Like the demonstrations required by part 25 for airplanes with more than 44 passengers, the demonstrations are intended to evaluate the evacuation capability of the airplane under standard conditions and are not intended to show the evacuation capability of the airplane under the most adverse condition that could be encountered. They are not intended, for example, to demonstrate the evacuation capability of the

the installation of such lighting is very costly.

In response to excluding smaller airplanes from the requirements pertaining to access to exits, § 121.310(f)(2) states, in part, that there must be enough space next to each Type I or Type II emergency exit to allow a crewmember to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required (20 inches wide). Part 135 contains the same requirement for airplanes having a passenger seating capacity of more than 19 seats.

Since the commenter's product has more than 19 passenger seats and numerous examples are already in service in this country, the airplanes have presumably been shown to comply with either § 135.178(f)(2) or the identical text of § 121.310(f)(2). Thus, this rulemaking would not impose any new burden on airplanes with more than 19 passenger seats.

Section 121.310(g) states that exterior exit markings "must be a 2-inch wide colored band outlining each passenger exit on the side of the fuselage." Since the band is outlining the exit it would be on the fuselage, not on the exit.

After reviewing the costs and benefits associated with the proposed emergency lighting requirements, the FAA has decided to revise the final rule as follows:

1. The floor proximity lighting requirements in § 121.310(c) will apply to all airplanes except nontransport category airplanes type certificated after December 31, 1964. In effect, this is not a change from current requirements. Affected airplanes with 10 to 19 passenger seats will not have to comply because of the small cabin size, the probability that passengers would be able to find the emergency exits without floor lighting, and the high cost of retrofitting for these requirements.

2. The interior light operation requirements of § 121.310(d) do not apply in the final rule to nontransport category airplanes certificated after December 31, 1964, since the requirements of § 121.310 (c) and (h) apply only to transport category airplanes.

3. The requirement for an illuminated exit operating handle (§ 121.310(e)) remains as proposed. The compliance date for retrofit requirements for 10- to 19-seat airplanes is 2 years after publication of the final rule.

4. Section 121.310(f) was proposed to apply to airplanes with a passenger-seating configuration of more than 19 seats. This remains in the final rule.

5. The requirement for marking emergency exits on the outside in § 121.310(g) remains as proposed since compliance is relatively simple and inexpensive for all affected operators.

6. The exterior lighting standards in § 121.310(h) are revised to except nontransport airplanes type certificated after December 31, 1964..

Seatbacks. Section 121.311(e) prohibits a certificate holder from taking off or landing unless passenger seats are in the upright position. Section 135.117 requires only that passengers be briefed that seats should be in the upright position. The FAA proposed that affected commuters be required to comply with § 121.311.

Comments: One commenter objects to the requirement because the pilots cannot assure compliance in a 19-seat airplane, especially during landing.

FAA Response: The FAA intended for those flights with flight attendants to be operated in accordance with the current § 121.311. For these flights on nontransport airplanes type certificated after December 31, 1964, the FAA has included wording to clarify that the pilot must only instruct the passengers to place their seatbacks in the upright position. The final rule has also been revised to add a new subparagraph to § 121.311(e) that provides that on an airplane with no flight attendant, the certificate holder may take off or land as long as the flightcrew instructs each passenger to place his or her seatback in the upright position. This change is needed to clarify what is required for airplanes that do not have a flight attendant.

15 months after publication of the final rule. However, to clarify that § 121.311(f) applies to newly manufactured nontransport category airplanes, appropriate language is added to that paragraph.

The final rule also revises § 121.311(h) to allow crewmembers for affected commuters to release the shoulder harness if they cannot perform their duties otherwise.

Interior materials and passenger seat cushion flammability. Section 25.853(b) was amended in 1984 to require seat cushions to meet greatly enhanced flammability standards. At the same time, §§ 121.312(b) and 135.169(a) (but not for commuter category airplanes) were amended to require airplanes already in service to meet the improved seat cushion flammability standards after November 1987. In the years that have passed since that date, the improved cushions are credited with saving a number of passengers' lives.

The FAA proposed to require nontransport category airplanes type certificated after December 31, 1964, to comply with the same seat cushion flammability standards that apply to other airplanes operated under part 121. The proposed compliance date was 2 years after the publication date of the final rule or on the first replacement of the cushions, whichever occurs first. The proposed rule also allowed for granting deviations for up to 2 additional years when justified by unique integral-seat cushion configurations.

The FAA also proposed that the interior components of nontransport category airplanes manufactured after 4 years or more after the publication date of the final rule must meet the same standards that those components must meet when installed in transport category airplanes with 19 or fewer passenger seats. Those standards, which involve testing with Bunsen burners, are not to be confused with the Ohio State University (OSU) radiant rate of heat release testing required for large-surface-area components installed in airplanes with 20 or more passenger seats. (See proposed § 121.2(e)(2)(ii).)

Comments: ALPA supports the proposed retroactive requirements, including this proposal.

Fairchild and AIA present identically worded statements opposing the proposed requirement that seat cushions would have to comply with the flammability standards of §§ 25.853(b) and 121.312(b). In that regard, they state that they know of no evidence that compliance would provide a significant safety benefit in 10 to 19 passenger airplanes. They do not believe that compliance would delay the spread of a fire enough to be an important factor in survival. In that regard, they note that the seats in smaller airplanes tend to be lightweight and offer relatively little mass of material to fuel a fire. Also, they believe that cabin fires are less likely to occur because the small size of the cabin restricts the amount of carry-on baggage and makes inappropriate passenger activity less likely. Finally, they believe that the FAA would have proposed such rulemaking already if warranted. NATA also believes the higher flammability standards would not be effective in smaller airplanes. That commenter asserts the cost of compliance would be \$20,000 per airplane.

Commuter Air Technology observes that the Beech King Air executive airplanes they modify for commuter air service would not have to comply in their original executive configuration because they have fewer than ten seats, yet would have to comply as modified because they have more than ten seats.

Big Sky Airlines and RAA suggest that the compliance period should be extended to enable replacement during the routine seat replacement cycle. One of these commenters quotes a compliance cost of \$30,000 for each 19 passenger airplane.

Mesa does not express support or opposition to the proposal, but states that compliance would entail \$12,000, 36 pounds, and 10 hours for a Beech 1900C, or \$3,400, 38 pounds, and 10 hours for either a Beech 1900D or Jetstream 3100.

No comments were received concerning the proposal to require commuter category airplanes produced four years or more after the effective date to comply with the Bunsen burner test of part 25 (§ 25.853(a)). One commenter states that the installation of interior materials complying with § 25.853(c) would not improve the level of safety of airplanes with 10 to 19 passenger seats.

choose to comply by using a covering material that protects the cushion from the fire. (The latter are usually referred to as "fire-blocked seats.") Individual seat cushions or individual seat cushion designs do not have to be tested if they can be shown to meet those standards by similarity to other cushions that have been tested previously and found to meet the standards. Advisory Circular (AC) 25.853-1, Flammability Requirements for Aircraft Cushions, issued September 17, 1986, provides guidance in that regard. In the years that have passed since transport category airplanes used in part 121 or 135 service were first required to comply, many different possible seat cushion designs have already been tested and found satisfactory. It is, therefore, quite possible to utilize a seat cushion material or fire-blocking material that has already been shown to comply with the flammability standards. In that regard, many of the affected airlines are affiliated with major airlines and have ready access to the same means of compliance adopted several years earlier by those major airlines.

Contrary to some commenters' beliefs, the use of seat cushions meeting these flammability standards is quite effective in the cabins of smaller airplanes. Some commenters note that the amount of cushion material is relatively small in 10- to 19-passenger airplanes. While the amount of cushion material in those airplanes is obviously much less than that in larger airplanes, it represents approximately the same portion of the total flammable material in those airplanes as in the larger airplanes. In addition to representing a large portion of the materials in the cabin that are flammable, the foam materials typically used for seat cushions are, by far, the most flammable of all the materials used in the cabin. A secondary, but no less significant, benefit is that cushions meeting these flammability standards are much less likely to ignite and sustain a flame than those that do not meet the standard. Precluding a fire from occurring is obviously the best possible form of fire protection.

The FAA conducted a series of 12 full-scale fire tests at its Technical Center at Atlantic City, New Jersey, using the fuselage of a Metroliner. The cabin of the Metroliner is typical of those of the part 23 Normal or Commuter Category airplanes with 10 to 19 passenger seats. Under the test conditions, it was shown that using seat cushions meeting these flammability standards, in lieu of the flammability standards that would otherwise be applicable, would afford passengers approximately 45 additional seconds in which to escape.

The primary benefit of having seat cushions that meet these flammability standards is to afford occupants more time in which to egress in a post-crash fire situation; however, such cushions also provide additional protection should an inflight cabin fire occur. Contrary to the beliefs of commenters in that regard, the FAA is aware of at least six instances in which cabin fires have been experienced since 1980 in nontransport category airplanes or transport category airplanes with cabins of similar size.

In their recommendation A-88-96, the National Transportation Board (NTSB) recommended the use of fire-blocking materials on seats in part 23 normal and commuter category airplanes. Fairchild, AIA, and others state that the fact that the FAA has not previously adopted seat cushion flammability standards for those airplanes is evidence that they would not result in a significant improvement in safety. The FAA has, in fact, initiated separate rulemaking in that regard (Notice No. 93-71, 58 FR 38028, July 14, 1993).

The intent of Notice 95-5 was to mitigate the cost by allowing compliance to coincide with the normal wear replacement cycles. Since compliance can be achieved whenever the seat cushions or seat coverings are being replaced due to normal wear, the cost of compliance for each seat is just the additional cost of including the fire-blocking layer along with the covering.

Based on the above, the FAA has decided to adopt the seat cushion flammability standards of § 121.312(c), but to allow a compliance period of 15 years after the publication date of this rule. The FAA felt that the immediate cost of this retrofit would have negatively affected the industry. By allowing up to 15 years, it should be possible for all replacements to be scheduled within normal replacement cycles. An additional benefit of a 15-year compliance period is that certificate holders can coordinate their compliance with this section with their plans for meeting other extended compliance times, i.e., meeting the performance and accelerate-stop requirements and installation of a third attitude indicator.

Section 121.312 provides the interior material flammability standards for airplanes operated under that part. As described above, the substantive provisions of that section are being retained, and the provisions applicable to airplanes being brought over from part 135 are being incorporated. In this final rule, § 121.312 is reorganized to highlight the applicable provisions and to provide greater clarity; the appropriate substantive text has been retained. Furthermore, appendix L is being added to part 121 to explain the regulatory citations for the part 25 provisions that have been superseded. Although those standards are not current insofar as new type certification under part 25 is concerned, they are referenced in part 121 and remain applicable for compliance. The addition of appendix L only clarifies existing requirements; therefore, it is adopted without prior notice and comment.

Miscellaneous Equipment. Notice 95-5 specifically discussed the proposal that would require affected commuters to comply with the miscellaneous equipment requirements of § 121.313(f) and (g). However, although not specifically discussed in Notice 95-5, § 121.313(c) pertaining to a power supply and distributive system would also be required.

Comments: Fairchild Aircraft notes that § 121.313(c) requires a power supply and distribution system that meets the requirements of six sections of part 25. Because § 121.313(c) does not assign an effective date to this list of part 25 sections, Fairchild assumes that it is the current version of each section that would be applicable. Fairchild also questions whether all airplanes currently operated under part 121 meet the current standards of part 25. Based on their assumption that their airplanes would have to meet current sections of part 25 and the fact that SFAR 23 and SFAR 41 airplanes do not meet those requirements, Fairchild proposes amending § 121.313(c) to except nontransport category airplanes type certificated after December 31, 1964, from this requirement.

FAA Response: The commenter has correctly identified the sections of part 25 that are listed in § 121.313(c); however, the commenter has apparently overlooked the alternative provisions contained in that section. In part, § 121.313(c) also reads: "or that is able to produce and distribute the load for the required instruments and equipment. . . ." This additional text of § 121.313(c) allows the use of a power supply and distribution system that performs this function regardless of whether it complies with the listed sections of part 25. The commenter's proposed amendment is not needed because § 121.313(c) already includes provisions for alternate means of compliance. The commenter's products have already been shown to comply with this alternative.

The commenter is correct in believing that some airplanes currently operated in part 121 service might not meet the current sections of part 25 listed in § 121.313(c). The issue is moot, however, since § 121.313(c) provides for alternative means of compliance.

Cockpit doors and door keys. Section 121.313 (f) and (g) require that there be a lockable door between the cockpit and the cabin and that there be a key for each cockpit door that is readily available to each crewmember. Part 135 does not have such requirements. The FAA proposed that the affected commuters be required to comply with the part 121 rules if there is a door with a lock or a door that can be retrofitted with a lock. (Curtains or accordion doors are not considered lockable doors.) If a lockable door already exists or can be retrofitted, the certificate holder would be required to provide a cockpit key that is readily available to each crewmember. Accordingly, the language of § 121.313(f) was changed to except nontransport category airplanes certificated after December 31, 1964, without a door. Transport category airplanes already are required to have a door and a lock with a key.

Comments: Most of the comments received on this issue oppose the requirement for a locking cockpit door and key. Several commenters say that the cockpit door on EMB-120 airplanes cannot be locked when the observer jumpseat is in use. These commenters are concerned that strict adherence to the wording of the rule would require them to retrofit the door, redesign the cabin, and probably remove a revenue seat, all at a high cost. These commenters recommend that the EMB-120 be exempted from the requirement when the observer jump seat is in use. One commenter states that some nontransport category aircraft that will transition to part 121 do not have a cockpit door lock and key and may not be able to install one. One commenter states that operators will be required to obtain a supplemental type certificate to retrofit airplane doors with key locks. Another commenter states that this requirement

have the same problem as existing nontransport category types; that is, cockpit doors will neither be practical nor appropriate. The commenter recommends amending § 121.313(f) to read “. . . except that airplanes type-certificated for a maximum of 19 or fewer passengers are not required to comply with this paragraph.”

AACA notes that the language of § 121.313(f), which lists required equipment for operating an aircraft, should be changed to exclude airplanes that do not have cockpit doors.

FAA Response: The FAA maintains that the cockpit key and door lock requirement should be retained to enhance aviation safety. However, the final rule language is clarified to require compliance only for airplanes with a passenger-seating configuration of 20 or more seats. Therefore, the requirement for a door lock and cockpit key does not apply to nontransport category airplanes type certificated after December 31, 1964 even if the airplane has a cockpit door.

In response to the comments regarding the EMB-120, § 121.587 allows for the door to remain open, if necessary, to provide access for a person authorized admission to the flightcrew compartment. This allows for the door to be open if the jump seat is in use by an authorized person. Section 121.587 applies to large airplanes which includes the EMB-120.

The FAA acknowledges that the commenters correctly state that keyless locks in airplanes with a passenger seating configuration of 20 or more would have to be retrofitted to work with keys. Certificate holders that would have to retrofit their door locks would incur a higher cost to comply with the requirement. Yet, the FAA strongly believes that keyless locks which only lock from the cockpit side pose a severe safety hazard if the pilots become incapacitated. The FAA maintains that an extended time period to retrofit locks is not justified in light of the many other new requirements which are even broader in scope.

Cargo and baggage compartments. Part 25 (as referenced in § 121.314) contains requirements for cargo or baggage compartment liners, smoke detection, and fire extinguishment for various classes of compartments. The compartment classification system, also duplicated in § 121.221 (which as previously discussed applies only to certain airplanes type certificated before November 1, 1946), is based on the compartment's accessibility for fire detection and extinguishment. Part 25 was amended in 1989 to require the liners of Class C and D compartments to meet more stringent flammability standards. Section 121.314 was also adopted at that time to require the improved liners in existing transport category airplanes on a retroactive basis.

Part 23 contains no classification system or requirements for compartment fire protection; however, a proposed rule to add comparable requirements was issued on July 22, 1994 (59 FR 37620). The FAA proposed in § 121.2(e)(2)(ii) by referencing § 121.314 to require this modification for commuter category (or its predecessor) airplanes manufactured 4 years or more after the publication date of the final rule. However, in Notice No. 95-5, the FAA did not propose to amend § 121.314, which currently applies only to transport category airplanes.

Comments: Two commenters submitted identical comments concerning this proposal. Both commenters believe that the cargo or baggage compartment classification system of § 25.857, referenced in § 121.314, is not suitable for smaller airplanes with fewer than 20 seats and that the smoke detector and fire extinguisher requirements are unreasonable and unnecessary in those airplanes. In that regard, they note that many commuter category airplanes are convertible from a full passenger configuration with a relatively small baggage compartment to combination passenger/cargo (combi) configurations to cargo only. They do not believe that it is practical to modify any of the combi configurations to comply with any of the cargo compartment classes defined by § 25.857. They assert there has been no history of service problems indicating a need for such features.

No comments were received concerning compartments other than those of combi airplanes. Also, no commenters responded to the request in the preamble to Notice No. 95-5 for information concerning less-costly alternatives such as requiring only liners and smoke detection.

Concurrent with the part 25 amendment, § 121.316 was amended to require airplanes already in service to comply with § 25.963(e) on a retrofit basis. These requirements pertain to all transport category, turbine-powered airplanes. Due to their smaller size and turbo-propeller configuration, part 23 airplanes generally do not present the same hazard. The FAA did not propose to require part 23 airplanes to comply with §§ 25.963(e) and 121.316. Since § 121.316 applies only to "turbine-powered transport category" airplanes, no rule change is needed. The FAA points out that turbine-powered transport category airplanes previously operated under part 135 would have to comply with § 121.316.

Comments: Raytheon Corporation submitted comments on the costs of complying with § 25.963(e) for airplanes that in the future would be required to be type certificated in the transport category under part 25.

FAA Response: As previously discussed, the applicability of all present part 25 requirements to airplanes with a passenger seating capacity in the 10–19 range for which a type certificate is applied for after March 29, 1995, will be dealt with in a future rulemaking action. Since Notice No. 95–5 did not propose any change for airplanes in existence or for airplanes newly manufactured under existing type certificates, this issue need not be discussed further in this rulemaking.

Passenger information. Notice 95–5 proposed that affected commuters would comply with the passenger information requirements in § 121.317. There was no preamble discussion of this section because the FAA determined that current requirements for affected commuters in §§ 135.127 and 91.517 were substantively the same as those in § 121.317.

Comments: Three comments were received on this section. Commuter Air Technology suggests that seatbelts should be worn the entire time for flights of less than an hour and a half. According to the commenter, requiring seatbelts at all times while engines are running would provide better passenger safety, remove an unnecessary checklist item from the flight station, and eliminate the probability of missing a flight due to an inoperative sign. According to the commenter, each seat could be placarded and the co-pilot could make a visual check of passenger compliance after closing the door hatch prior to departure.

Two commenters state that § 121.317(a) should be revised to allow permanently lighted no-smoking signs or conspicuous placards, since smoking is prohibited on all flights.

FAA Response: Section 121.317 sets minimum requirements. Both §§ 121.317 and 135.127 allow the use of no smoking placards that meet the requirements of § 25.1541 if the placards are posted during the entire flight segment. Section 121.317(a) requires passenger information signs (fasten seatbelt signs and no smoking signs) that the pilots can turn on and off and § 121.317(b) specifies when fasten seatbelt signs must be turned on. To ensure that the present requirements of § 121.317 are not interpreted so as to prohibit the use of placards in certain airplanes, a clarifying amendment is included in the final rule. New § 121.317(l) provides that a person may operate a nontransport category airplane type certificated after December 31, 1964, having a passenger-seating configuration of 10–19 seats manufactured before 15 months after the publication date of this final rule if it is equipped with one placard that is legible to each person seated in the cabin that states "Fasten Seat Belt" if the flightcrew orally instructs the passengers to fasten their seatbelts at the necessary times. Newly manufactured airplanes must comply with lighted seat belt sign requirements of § 121.317(a) within 2 years after the date of publication of this final rule. In addition, § 121.317(d) requires one legible sign or placard that reads "fasten seat belt while seated" that is visible from each passenger seat. Affected commuters must comply with § 121.317(d) at the time of recertification under part 121, or within 15 months, whichever occurs first.

Instruments and equipment for operations at night. Section 121.323 requires two landing lights for night operations. Under the proposal, the requirement would apply to all affected commuters. While no comments were received on the proposal, the FAA had intended to revise § 121.323 to except nontransport category airplanes certificated after December 31, 1964, from having more than one landing light. The exception was intended because small airplanes with shorter wing spans can be operated safely with

Comments: Fairchild Aircraft comments that the proposed oxygen requirements are inappropriate for smaller commuter service and that this section should be revised to exclude airplanes with fewer than 20 seats. This commenter also asks that § 121.335 be revised to allow oxygen flow rates based on the airplane's certification basis rather than Civil Air Regulation 4b.651. Fairchild finds that this would avoid unnecessary complication and expense.

FAA Response: In the case of first aid oxygen, since Notice 95-5 proposed no flight attendant for the 10- to 19-seat airplane, requiring the first aid oxygen that would be dispensed by a flight attendant would not be logical. Since the airplanes operated by the affected commuters were not type certificated for flight above 25,000 feet and since § 121.333(e)(3) only applies to pressurized airplanes that operate above 25,000 feet, it would not as a practical matter apply to commuter (or predecessor) airplane operations. The requirement does apply to airplanes with 20 to 30 passenger seats, as proposed.

In the case of § 121.335, the FAA finds that parts 23 and 25 provide standards for oxygen that either meet or exceed the standards in section 4b.651 of the CAR. Section 4b.651 has a built in deviation authority.

Portable oxygen for flight attendants. Section 121.333(d) requires that each flight attendant shall, during flights above 25,000 feet, carry portable oxygen equipment with at least a 15-minute supply of oxygen, unless enough portable oxygen units with masks or spare outlets and masks are distributed through the cabin to ensure immediate availability of oxygen to each flight attendant regardless of his or her location at the time of cabin depressurization. Part 135 does not have a similar requirement for portable oxygen for flight attendants. In Notice 95-5, the FAA proposed that affected commuters who use flight attendants in their operations and that operate above 25,000 feet be required to comply with the part 121 requirement. No comments were received on this issue and the final rule is adopted as proposed. For a related discussion on the use of oxygen, see the discussion under "Oxygen Requirements."

Protective breathing equipment (PBE). Section 121.337 contains requirements for equipping the flight deck and passenger compartments of transport category airplanes with PBE. Part 135 does not currently require any type of PBE.

Section 121.337(b)(8) (smoke and fume protection) requires PBE, either fixed or portable, to be conveniently located on the flight deck and easily accessible for immediate use by each flight crewmember for smoke or fume protection at his or her duty station. In addition, § 121.337(b)(9) (fire combatting) requires that for combatting fires a portable PBE must be located on the flight deck with easy access by each flight crewmember for fighting fires. Also portable PBE in the passenger compartment must be located within 3 feet of each hand fire extinguisher. Both of these requirements provide that the Administrator may authorize another location if special circumstances exist that make compliance impractical and the proposed deviation would provide an equivalent level of safety.

The proposal required affected commuters to comply with the PBE requirements of § 121.337. To be in compliance, an airplane with a passenger-seating configuration of 10 to 19 seats would have to have at least three PBE: one PBE, fixed or portable, for each flight crewmember at his or her station, and an additional portable PBE on the flight deck for use in fighting fires. An airplane with a passenger-seating configuration of 20 to 30 seats would have to have at least four PBE: one PBE, fixed or portable, for each flight crewmember at his or her station; an additional portable PBE on the flight deck for fighting fires; and a portable PBE in the passenger compartment located within 3 feet of the required hand fire extinguisher.

The proposal revised the applicability of the current rule to include other than transport category airplanes. Proposed § 121.337(b)(9)(iv) was also revised to except airplanes having a passenger-seating configuration of fewer than 20 seats and a payload capacity of 7,500 pounds or less from the requirement to have a PBE in the passenger compartment. The exception is needed because these airplanes are not required to have a flight attendant; for these airplanes, the portable PBE on the flight deck could be used by a flight crewmember for fighting a fire.

the FAA should reduce the compliance time for PBE equipment to 6 months. Though commenters provide cost estimates to install PBE on their airplanes, costs are provided only for 10 to 19 seat airplanes, which would not be required to have PBE in the cabin.

FAA Response: The FAA maintains that the proposed PBE requirement for affected commuters is appropriate. There are several safety benefits for requiring smoke and fume PBE. The use of smoke and fume PBE required by § 121.337(b)(8) would help prevent the injury or death of flight crewmembers from smoke or harmful gases.

The FAA contends that there is adequate space in the cabin of 20- to 30-seat commuter airplanes to accommodate portable PBE for fire combatting, and no major cabin retrofits would be required. With regard to firefighting PBE, the FAA has determined that such equipment is not appropriate for operations with 10-19 passengers. There are no flight attendants on these flights and the pilots generally remain on the flight deck to operate the aircraft during an emergency. In an emergency, passengers will have access to a fire extinguisher and will be able to assist in extinguishing any flames within the cabin. However, passengers are not trained in the use of fire combatting PBE and would not know how to operate such equipment. Accordingly, nontransport category airplanes type certificated after December 31, 1964, having a passenger-seating configuration of 10- to 19-seats are excepted in the final rule from the requirements in § 121.337(b)(9) for having PBE's for combatting fires.

In response to other comments, the lack of a pressurized cockpit does not diminish the need for PBE to enhance safety in case of fire, nor can existing oxygen systems provide adequate protection for fighting a fire. Approved PBE in the cabin must have a protective hood and be fully mobile.

Due to the broad scope of this rulemaking action, certificate holders will have to deal with many new requirements. Therefore, as proposed, a consistent compliance period of 2 years is applied to all affected airplanes for acquiring PBE.

Emergency equipment for extended overwater operations. Sections 121.339 and 135.167 require that airplanes engaged in extended overwater operations (more than 50 nautical miles from the nearest shoreline) provide the following: enough life rafts of a rated capacity and buoyancy to accommodate the occupants of the airplane; a life preserver equipped with an approved survivor locator light for each occupant of the airplane; a pyrotechnic signaling device for each life raft; a survival kit and a survival type emergency locator transmitter. In addition, § 121.339 requires that unless excess rafts of enough capacity are provided, the buoyancy and seating capacity of the rafts must accommodate all occupants of the airplane in the event of loss of one raft of the largest rated capacity. In practice, this requirement is typically met by carrying a spare raft of the largest rated capacity.

The FAA proposed that the affected commuters that engage in extended overwater operations should be required to meet the part 121 requirements. As with current part 121 certificate holders, affected commuters can apply for deviations, and the FAA can decide, on a case by case basis, if a deviation is appropriate. These deviations are issued pursuant to § 121.339(a) which permits the Administrator to allow deviation from the requirement to carry certain equipment for extended overwater operations. Since there are few extended overwater operations conducted by commuters, the FAA does not expect this proposed requirement to have a significant impact.

Comments: Four commenters argue against the requirement for a spare life raft on commuter airplanes. One commenter says that the spare life raft is not necessary because seats can be equipped with additional life vest storage pouches. Another commenter says that the spare life raft is appropriate for larger airplanes but not for 10 to 30 seat aircraft. This commenter also suggests that the rule should remain as presently written under § 135.167, and, on a case-by-case basis, the FAA can require certificate holders to obtain a spare life raft. Another commenter states that spare life rafts should not be required on aircraft with less than 20 passenger seats because the requirement will increase operating costs and reduce passenger revenues. A fourth commenter states that the cumulative weight, space, and compliance costs will be significant for affected Alaskan operators and that these costs cannot be spread across a large number of passenger seats as can be done with a larger aircraft.

to separate in open water. A life raft enables passengers to stay together. An even greater threat is hypothermia, a sequence of physical reactions resulting from the loss of body heat. In cold water, a person will experience increased difficulty with mobility and intense shivering occurs. In arctic waterways, survival time can be as little as 2 or 3 minutes. Thus, a spare life raft is appropriate for affected commuters to enhance passenger safety. The requirement in part 121 for equipping each life raft with a pyrotechnic signaling device is identical to part 135 for extended overwater operations. The recommendation to except scheduled air carriers from the provisions of § 91.205(b)(11) is beyond the scope of this rulemaking. Moreover, under § 119.1(c) persons subject to part 119 must comply with other requirements of this chapter, except where those requirements are modified by or where additional requirements are imposed by parts 119, 121, 125, or 135 of this chapter. Therefore, the final rule requires commuter airplanes to adhere to part 121 standards and provides deviation authority on a case by case basis.

Flotation devices. Section 121.340 requires that a large airplane in any overwater operation must be equipped with life preservers or with an approved flotation means for each occupant. Because it is practically impossible to operate any place without flying over a body of water of sufficient depth to require some sort of flotation means, § 121.340 has been applied so that virtually every airplane is equipped with either flotation cushions or life preservers. In parts 121 and 135, life preservers are required only for extended overwater operations, (§§ 121.339 and 135.167). Therefore, airplanes used in extended overwater operations are already equipped with life preservers and do not need to have flotation cushions.

The FAA proposed that airplanes equipped with 10 or more seats operating in scheduled passenger operations would comply with § 121.340 and accordingly proposed revising the section to delete the word "large." To allow any replacement of seat cushions to be coordinated with the seat cushion flammability requirements of § 121.312(c), the FAA proposed a compliance date of 2 years after the publication date of the final rule.

Comments: The FAA received three comments that oppose the requirement for flotation devices. One commenter opposes the requirement because of the equipment cost and weight penalty. This commenter determines that the seat cushions in the METRO aircraft would not serve as effective flotation devices. The commenter provides a cost estimate for acquiring and retrofitting individual flotation devices for METRO airplanes. The commenter also states that each flotation device for 10 to 30 seat airplanes would have to be equipped with an approved survivor location light. A second commenter states that the rule should allow exemptions for operations that do not fly over or near large bodies of water. This commenter does not believe that flotation devices would enhance safety. Finally, a third commenter states that flotation devices are already required for extended overwater flights for all airplanes by § 91.205.

FAA Response: The FAA concurs that if the seat cushions in a particular airplane model do not serve as flotation devices, then individual flotation devices would have to be acquired. If life preservers are provided as individual flotation devices they would have to have an approved survivor locator light as required by § 121.339(a)(1).

The FAA found during previous rulemaking that all flights traverse a body of water of at least 6 feet deep during the course of a year. Therefore, individual flotation devices or life preservers for 10 to 30 seat airplanes are required on all flights. Section 121.340(b) contains provisions for requesting an approval to operate without the flotation means if the operator shows that the water over which the airplane is to be operated is not of such size and depth that life preservers or flotation devices would be needed for survival.

The FAA concurs with one of the commenters that § 91.205 requires flotation devices for all airplanes involved in extended overwater flights. Section 121.340 is clearly more restrictive.

Although the compliance date for meeting passenger seat cushion flammability requirements has been extended to 15 years, the compliance time of 2 years for providing flotation devices is the same as proposed.

Pitot heat indication system. Section 25.1326 requires a pitot heat indication system to indicate to the flightcrew when a pitot heating system is not operating. Part 23 currently requires pitot heat systems for airplanes approved for IFR flight or flight in icing conditions, but does not require pitot heat indicators. Section 121.342 currently requires a pitot heat indication system on all airplanes that have pitot heat systems installed.

In recommendation A-92-86, the National Transportation Safety Board (NTSB) recommended that small airplanes certificated to operate in icing conditions and at altitudes of 18,000 feet mean sea level and above should be modified to provide a pitot heat operating light similar to the light required by § 25.1326. As recommended by the NTSB, the FAA proposed to amend part 23 to require such indication for commuter category airplanes (Notice No. 94-21, 59 FR 37620, July 22, 1994). This new requirement, when adopted, will apply to new type certification and will not affect existing in-service commuter airplanes or future production of currently approved commuter airplanes.

In Notice 95-5, the FAA proposed to amend § 121.342 to require nontransport category airplanes type certificated after December 31, 1964, to incorporate pitot heat indication systems. Affected commuters would have to comply within 4 years after the publication date of this rulemaking.

Comments: Three comments were received on this proposal. Fairchild Aircraft Co., a manufacturer of commuter airplanes fully supports the proposal.

RAA notes that FAA's cost estimate of \$500 was significantly lower than the commenter's estimate of between \$1,500 and \$25,000 per airplane. The commenter further states that there was no known history of accidents or incidents to justify the cost of retrofits and recommends that the requirement apply only to newly manufactured airplanes.

Commuter Air Technology, an aircraft modifier, notes that pitot tubes are accessible to ground personnel who could ascertain their proper function prior to flight. The commenter argues that because of the short duration of commuter flights (usually 1 hour) failure in flight would probably allow for continued flight to the next airport.

FAA Response: As a result of comments received in response to Notice 95-5, the FAA re-examined the cost estimates of this rulemaking. Those revised cost estimates, which are higher than those in the proposal, are included in the Regulation Evaluation Summary of this rulemaking.

The FAA disagrees with the commenter's contention that ground checks and short flights preclude the need for pitot tube heat indicators. Airspeed indicating errors caused by unheated pitot tubes have contributed to icing-related accidents. Airspeed indicating errors are not always obvious to the pilot who may make decisions based on the resulting erroneous information. A system which indicates when the pitot tube is, or is not, heated will provide the crew with the status of the system.

Therefore, the FAA is amending § 121.342, as proposed, to require nontransport category airplanes type certificated after December 31, 1964, that are equipped with a flight instrument pitot heating system to incorporate pitot heat indication systems within 4 years after the effective date of this rulemaking.

Flight data recorders (FDR's). Notice 95-5 did not propose any substantive revisions to current part 121 or part 135 flight data recorder (FDR) requirements. According to the proposal, affected commuters would continue to meet part 135 requirements while the FAA is developing updated FDR requirements for both parts 121 and 135.

Comments: One commenter states that some of the current equipment being used is providing inadequate records and that part 121 and 135 certificate holders should be required by December 31, 1999, to install new FDR on all airplanes. He further states that industry data indicates the changeover will cost \$29 million divided by 454 million passengers a year, and that equates to 6 cents increase in ticket prices.

aircraft even though not all aircraft operated under part 121 are required to meet the requirements supporting extending the current part 121 requirement to all aircraft with 10 or more seats operating in scheduled passenger service. In addition, the commenter supports regulations which would require such equipment to meet a new, higher minimum standard.

FAA Response: A recommendation for a rule change on FDR's is being addressed by the Aviation Rulemaking Advisory Committee (ARAC), and the concerns of the commenting parties will be reflected in that separate rulemaking if a rule change is proposed. This rulemaking did not propose any increase in channels for existing FDR's.

For clarification the proposed rule language has been revised in § 121.344 of the final rule to state that § 135.152 FDR requirements will apply to airplanes with a payload capacity of 7,500 pounds or less and a passenger seating configuration, excluding any pilot seat, of 10–30 seats. The proposed rule had not specified passenger seating capacity.

Radio equipment. Sections 121.345 through 121.351 cover radio equipment requirements. Part 121 specifies radio equipment requirements for operations under VFR over routes navigated by pilotage, for operations under VFR over routes not navigated by pilotage or for operations under IFR or over-the-top, and for extended overwater operations. The requirements are more specific and restrictive than those in § 135.161. The radio equipment requirements in part 121 are cumulative; that is, the regulations prescribe basic radio equipment requirements for VFR over routes navigated by pilotage and additional equipment for VFR over-the-top or IFR. Almost all part 121 operations are conducted under IFR. The proposed rule would require affected commuters to comply with part 121 radio equipment requirements.

The final rule revised § 121.349 (radio equipment for operations under VFR over routes not navigated by pilotage or for operations under IFR or over the top) by adding a new paragraph (e) which incorporates requirements in § 135.165(a). This change is necessary because part 121 does not have comparable requirements.

Emergency equipment for operations over uninhabited terrain. Section 121.353 prescribes the emergency equipment needed for operations over uninhabited terrain for flag and supplemental operations. The requirements include pyrotechnic signaling devices, emergency locator transmitters (ELT's), and survival kits equipped for the route to be flown. The proposed rule would require compliance with § 121.353.

Comments: Two commenters state that application of § 121.353 to affected commuters would provide relief from compliance with § 91.205, which would reduce the standards. One of these commenters claims that S-type ELT's as required by § 121.353 are useful for sea ditching but are of no use over uninhabited terrain. According to the commenter, they are intended for extended overwater operations, are immersion activated, are not intended for fixed installation on aircraft, lack any impact G-force activation feature, are very bulky, are extremely expensive, and, by design, are not suitable for surviving situations other than sea ditching. The commenter states that incapacitated survivors on uninhabited terrain cannot expect any help from an S-type ELT. The commenter recommends revising § 121.353 to state that the provisions are in lieu of part 91 provisions and that an airplane subject to part 121 must be equipped with an ELT or pyrotechnic signal device in accordance with § 121.353 or § 121.339 (extended overwater).

RAA also states that the requirement for pyrotechnic signaling devices is impractical for airplanes operating under part 121 and recommends that § 91.205(b)(11) be amended to exclude these certificate holders.

RAA and ASA point out that the requirement for ELT's in § 91.207 exempts turbojet-powered aircraft and aircraft engaged in scheduled flights by scheduled air carriers. RAA and ASA believe that all jet-powered airplanes that normally operate under part 121 whether or not they utilize propellers should be exempt from the requirements of § 91.207 during flight operations under part 91, such as ferry, training, testing, proving runs, which are incidental to or in support of scheduled operations. RAA and ASA recommend revising § 91.207(f)(1) to read: "Large turbine powered airplanes."

AACA indicates that the economic analysis did not include the weight penalties or costs for installing, maintaining, repairing, and training for the use of survival kits. AACA also states that the rule is unclear

and an applicability statement added to include Alaska and Hawaii. Since these operators have been meeting flag requirements, this revision will not be a change for them.

The revisions requested to part 91 to exempt ferry flights and other types of flight incidental to scheduled flights is a separate issue from the requirements of § 121.353 which pertain only to emergency equipment for operations over uninhabited terrain. Any amendment to part 91 would need to be part of a separate rulemaking.

The FAA does not agree that the language of § 121.353 should be revised to clarify that it replaces the requirements for pyrotechnic signaling devices in § 91.205(b)(11) pertaining to aircraft for hire operated over water beyond power off gliding distance to shore. The proposed applicability of § 121.353 to affected commuters if they fly a supplemental or flag operation does not affect the applicability of part 91 requirements. The requirements of § 91.205(b)(11) would continue to apply under applicable circumstances. Part 121 requirements are in addition to part 91, not in lieu of part 91.

The FAA does not agree with the commenter's claim that survival-type ELT's do not work except in water ditchings. It is true that S-type ELT's must meet certain buoyancy, waterproofness, and immersion in salt water requirements. While many S-type ELT's employ water-activated batteries, they are not required. Regardless of the type of battery used, each ELT must have a means by which it can be activated manually.

In addition, this rulemaking does not define "uninhabited terrain." When the predecessor regulation to § 121.353 was proposed in CAB draft release 58-24 in 1960, "uninhabited terrain" was defined as "flights for long distances over frigid or tropical land areas for which the Director finds such equipment to be necessary for search and rescue operations because of the character of the terrain to be flown over." When the rule was adopted, the wording was changed to provide the Administrator more flexibility in identifying uninhabited areas. Since implementation is on a case-by-case basis through operations specifications, it was determined that the proposed wording was not necessary. This provision has been in effect for over 30 years without any problem about the meaning of "uninhabited areas."

Airborne weather radar. The proposed rule would require all affected commuters to have airborne weather radar in accordance with § 121.357. Currently, part 135 requires weather radar for 20-30 passenger seat airplanes and weather radar equipment or approved thunderstorm detection equipment for 10-19 passenger airplanes.

Comments: Three comments were received on the proposal. RAA and AMR Eagle support the proposed requirement. AMR Eagle states that commuter operations are typically characterized by high frequency operations at lower altitudes with short stage lengths which necessarily limits preplanning, planning, or executing a desired deviation in flight profile because of changing weather. Hence a flightcrew needs all available tools to conduct safe operations.

One commenter states that airborne weather radar is not needed in Alaska because severe thunderstorms and tornadoes do not occur there.

AACA claims that Notice 95-5 is silent about the exceptions for operations within the states of Alaska and Hawaii and within parts of Canada. AACA requests that the FAA specifically address the issue that airborne weather radar and airborne thunderstorm detection equipment will not be required for operations previously excepted under part 121 and part 135 (§§ 121.357(d) and 135.173(e)). According to the commenter, there have been no meteorological changes in Alaska since the regulation was originally written; therefore, this equipment is no more necessary now than it ever was.

FAA Response: The FAA agrees with AACA that, in accordance with § 121.357(d), airborne weather radar is not required for airplanes used solely within the State of Hawaii or the State of Alaska or that part of Canada west of longitude 130 degrees W, between latitude 70 degrees N and latitude 53 degrees N, or during any training, test, or ferry flight. This exception is retained in the final rule. In Notice 95-5 the FAA did not propose to delete the § 121.357(d) exception.

ALPA says that the FAA should require TCAS II for aircraft with fewer than 30 passenger seats, including cargo aircraft (which have increased in recent years).

RAA recommends revising § 121.356(a) to require that “. . . each certificate holder shall equip its airplanes with an approved TCAS II traffic alert and collision avoidance system and the appropriate class of Mode S transponder. . . .”

Two certificate holders, Samoa Air and Inter Island Air, say that TCAS is expensive and useless for their operating environment, i.e., airspace with little air traffic.

Fairchild Aircraft states that § 121.345(c)(2), which requires Mode S transponders, is similar to a requirement in part 135 (§ 135.143(c)(2)). According to the commenter, the Mode S equipment has not been installed and the commenter believes that the FAA is granting exemptions to the requirement for part 135 certificate holders. If exemptions would not be granted under part 121, significant cost would be involved.

FAA Response: The intent of the proposed rule § 121.356 was that airplanes with a passenger seating configuration of 10 to 30 seats must be equipped with at least a TCAS I system which is the same as the present part 135 requirement for the affected airplanes. TCAS I systems are not required to be equipped with Mode S transponders.

As a commenter states, unrelated to TCAS I requirements, exemptions to the Mode S requirements of part 135 are currently in effect. Any affected commuters who hold an exemption from the part 135 requirement or from § 135.143, Mode S requirements, after this final rule must reapply to be exempted from the Mode S requirements of part 121.345.

The commenter's recommendation to require TCAS for all-cargo operations is beyond the scope of this rulemaking, as are the recommendations to require TCAS II for all airplanes and to exempt certain affected certificate holders from the requirement for certificate holders to have TCAS I by December 1995.

Low-altitude windshear systems. Section 121.358 requires an approved airborne windshear warning system for most turbine powered airplanes. It specifically excludes turbopropeller-powered airplanes. No comments were received concerning this section and the final rule is adopted as proposed. Comments received on windshear training requirements are discussed under subpart N.

Cockpit voice recorders. No comments were received on this issue; however, the FAA is making a change in the final rule language to correctly incorporate the current CVR requirements that apply to airplanes with 10–30 passenger seats.

Ground proximity warning system (GPWS). Under the proposed rule, affected commuters would have to comply with the GPWS requirements of § 121.360. By the compliance date of this rulemaking, all part 135 operators of turbine powered airplanes having a passenger seating configuration of 10 or more seats would have to have GPWS. All affected commuters are included in this requirement. The GPWS required under part 135 would meet the standards of part 121.

No comments were received on this issue; however, the FAA has discovered that the word “large” was not deleted from § 121.360. This deletion is necessary if the requirements are to apply to all affected commuters. Accordingly the word “large” is deleted in the final rule.

VI.A.8. Subpart L—Maintenance, Preventive Maintenance, and Alterations

Applicability. Part 121 certificate holders are required to adopt a continuous airworthiness maintenance program (CAMP), which has a proven track record for large transport category airplanes. Under § 135.411(a)(2), airplanes that are type certificated for a passenger-seating configuration of 10 seats or more are already required to comply with a CAMP similar to part 121 requirements. The proposed rule would require all airplanes type certificated for 10 or more passengers to comply with part 121 CAMP requirements. These requirements are consistent with present-day maintenance standards and tech-

American Eagle encourages proposed rulemaking which would mirror current parts 121 and 25 maintenance and inspection requirements for aircraft certificated under part 23 or SFAR 41 and used in commercial aviation of any type.

FAA Response: Since the comments in effect support the proposed rule changes, they are adopted as proposed.

Responsibility for airworthiness. Section 121.363 places the responsibility for airworthiness of an airplane on the certificate holder; § 135.413 contains a similar requirement. Under the proposal, affected commuters must comply with § 121.363. Section 135.413(a) requires a part 135 operator to have defects repaired between required maintenance under part 43. This provision does not appear in part 121. Part 121 operators are required to have defects repaired in accordance with their maintenance manual. Since an FAA-approved maintenance manual requires no less than the part 43 requirements, affected commuters would experience no change in requirements under the proposal. On this issue, no comments were received and the final rule is adopted as proposed.

Maintenance and preventive maintenance, and alteration organization. Section 121.365 requires the certificate holder to have an adequate maintenance organization for the accomplishment of maintenance, preventive maintenance, and alterations on its airplanes. The provision allows the certificate holder to arrange with another person to accomplish the work, provided that the certificate holder determines that the person has an organization adequate to perform the work. This provision requires separate inspection functions to ensure that those items directly affecting the safety of flight are verified to be correct by someone other than the person who performed the work.

The FAA recognizes that other provisions of the proposed rule in Notice 95-5, which would require affected certificate holders to install new equipment and might lead to replacement of part 23 type certificated airplanes with part 25 type certificated airplanes, could necessitate that maintenance personnel (as required by this section and by §§ 121.367 and 121.371) have additional skills and training.

Comments: American Eagle supports the proposal.

FAA Response: Since the only comment on this issue is supportive, the rule is adopted as proposed.

Manual requirements. Sections 121.369 and 135.427 have almost identical requirements specifying that the certificate holder include in its manual a description of the organization required by § 121.365 and a list of persons with whom it has arranged for the performance of any required inspections, other maintenance, preventive maintenance, or alterations. The manual must contain the programs required by § 121.367, including the methods of performing required inspections, other maintenance, preventive maintenance, or alterations. This manual is necessary to ensure that the certificate holder has provided an adequate maintenance program for the airworthiness of its airplanes and to inform its personnel, or other persons who perform maintenance, of their responsibilities regarding the performance of maintenance on the airplane. In the proposal, the FAA required affected commuters to comply with part 121. No comments were received on this issue and the final rule is adopted as proposed.

Required inspection personnel. Sections 121.371 and 135.429 contain similar requirements for inspection personnel, including provisions for specific qualifications for and supervision of an inspection unit. Included is a requirement for listing names and appropriate information of persons who have been trained, qualified, and authorized to conduct required inspections. This requirement ensures that competent and properly trained inspection personnel are authorized to perform the required inspections. In Notice 95-5, the FAA required affected commuters to comply with part 121. No comments were received on this issue and the final rule is adopted as proposed.

Continuing analysis and surveillance. Section 121.373 on continuing analysis and surveillance is almost identical to the provisions of § 135.431. The FAA proposed that affected commuters comply with § 121.373. Section 121.373 provides for: the establishment by the certificate holder of a system to continually analyze the performance and effectiveness of the programs covering maintenance, preventive maintenance,

dues. The FAA proposed that operators comply with part 121. On this issue, no comments were received and the final rule is adopted as proposed.

Maintenance and preventive maintenance personnel duty time limitations. Section 121.377 establishes the requirements for maintenance personnel to be relieved from duty for a period of at least 24 consecutive hours during any 7 consecutive days, or the equivalent thereof within any calendar month. This requirement is for maintenance personnel within the United States. This provision would be a new requirement for affected commuters.

Comments: AACA states that most Alaskan certificate holders utilize mixed fleets ranging from under 9 passenger seats, 10–19 seats, and more than 20 seats. These carriers frequently employ maintenance personnel who are qualified to work on all the aircraft in a particular certificate holder's fleet, regardless of the aircraft's seating capacity. If the rule is adopted as proposed, these certificate holders will have to schedule maintenance personnel according to part 121 standards to avoid inadvertently violating the maintenance personnel duty time limitations. At locations with limited maintenance personnel and mixed fleets of 1-to-9, and 10-to-29 seat aircraft, this new requirement would place an additional administrative scheduling burden and financial compliance cost on the air carrier. Alternatively, an air carrier might have to develop and apply two separate work schedules for mechanics, one for part 121 mechanics and aircraft and another for part 135 mechanics and aircraft. AACA states that the FAA's economic analysis failed to address any cost impacts of this requirement. AACA also asks for guidance for those operators who employ maintenance personnel that might work under both part 121 and part 135.

FAA Response: The existing rule requires only 24 consecutive hours off during any 7 consecutive days. While it may have been possible to work mechanics under part 135 7 days a week, without rest, the FAA believes that the combination of union work rules, Department of Labor regulations, and general practice of a day of rest each week would, in effect, accomplish the same result as the rule.

Mechanics must receive adequate rest in order to properly perform their duties. Prescribing a minimum standard will ensure that some rest is provided. It would be inconsistent to require rest for the pilots and flight attendants but not for the people responsible for maintaining the airplane. The FAA believes that the burden of scheduling and providing a day of rest would be minimal. Standard time cards, a common practice, could be used to show compliance.

No FAA regulation prevents a mechanic from working for both a part 121 and a part 135 employer when the mechanic is qualified and, when working on airplanes operated under part 121, the certificate holder meets the regulatory requirements of part 121 for time free from duty.

It should also be noted that the rule allows flexibility by requiring that a certificate holder shall relieve each person performing maintenance or preventive maintenance from duty for at least 24 consecutive hours during any 7 consecutive days, "or the equivalent thereof within any calendar month."

The final rule is adopted as proposed.

Certificate Requirements. Sections 121.378 and 135.435 contain identical requirements specifying that each person, other than a repair station certificated under the provisions of subpart C of part 145, who is directly in charge of maintenance, preventive maintenance, or alterations, and each person performing required inspections, hold an appropriate airman certificate. The FAA proposed that affected commuters comply with part 121. No comments were received on this issue and the final rule is adopted as proposed.

Authority to perform and approve maintenance, preventative maintenance, and alterations. Sections 121.379 and 135.437 contain similar requirements allowing certificate holders to perform or make arrangements with other persons to perform maintenance, preventive maintenance, and alterations as provided in its continuous airworthiness maintenance program and its manual. In addition, a certificate holder may perform these functions for another certificate holder. The rules require that all major repairs and alterations must have been accomplished with data approved by the Administrator. The FAA proposed that affected commuters comply with part 121. No comments were received on this issue and the final rule is adopted as proposed.

list of items that must be recorded. Zantop says that the engine and propeller requirement is new for them and that the aircraft (airframe) total hours in service is the only time transferred on many of its older aircraft. The new requirement would result in searching maintenance records to determine the historical time on the engine and propeller. In some cases this information may not be available. Zantop recommends that an exemption be provided for older aircraft or that these records only be required for future certifications.

FAA Response: Although current § 121.380(a)(2)(i) does not specifically call for total time in-service records of engines or propellers, it does require a record of life-limited parts for these components. The only way to accomplish this is by keeping records for total time in service. Total time in service records may consist of aircraft maintenance record pages, separate component cards or pages, a computer list, or other methods as described in the applicant's manual.

Tracing a life-limited part back to its origin would be required only in those situations where the certificate holder's records are so incomplete that an accurate determination of the time elapsed on the life-limited part could not be made.

The part 135 certificate holders moving to part 121 will have no impact from this rule, since they are already tracking airframe, engine, and propeller time under § 135.439(a)(2)(i).

The airframe, engine, and propeller information is helpful in tracking airworthiness directive compliance and life limits for life-limited parts. It also standardizes language between part 135 and part 121. The FAA believes that at least some of the current part 121 certificate holders have the information in existing required records in order to show compliance with life-limited components. However, the FAA has decided to allow current part 121 operators some time to come into compliance with the requirements for recording total time for engines and propellers. The final rule for § 121.380 has been revised accordingly.

Transfer of maintenance records. Section 121.380a requires the certificate holder to transfer certain maintenance records to the purchaser at the time of the sale, either in plain language form or in coded form. This section is worded the same as § 135.441 except that the part 121 provision allows the purchaser to select the format of the transferred records. Notice 95-5 specified that affected commuters comply with part 121. No comments were received on this issue and the final rule is adopted as proposed.

VI.A.9. Subpart M—Airman and Crewmember Requirements

Flight attendant complement. Section 121.391 requires one flight attendant for airplanes having a seating capacity of more than 9 but less than 51 passengers. Section 135.107 requires one flight attendant for airplanes having a passenger seating configuration, excluding any pilot seat, of more than 19 passengers. The FAA retained the requirement for a flight attendant for more than 9 passengers for current part 121 airplanes and proposed to amend the section to require a flight attendant for affected commuters only in airplanes with more than 19 passenger seats. No comments were received on this issue and the final rule is adopted as proposed.

Flight attendants being seated during movement on the surface. Section 121.391(d) states that during movement on the surface, flight attendants must remain at their duty stations with safety belts and shoulder harnesses fastened except to perform duties related to the safety of the airplane and its occupants. Part 135 has a similar provision in § 135.128(a), except that it does not specify that flight attendants may be performing safety duties during movement on the surface. The FAA proposed that affected commuters comply with part 121. On this issue, no comments were received and the final rule is adopted as proposed.

Flight attendants or other qualified personnel at the gate. The FAA proposed that all airplanes being operated by affected commuters be required to comply with current § 121.391(e); that is, they must have a flight attendant or substitute (such as a flight crewmember or trained gate agent) on board when the airplane is parked at the gate and passengers are on board. The substitutes must be given training in the emergency evacuation procedures for that airplane as required by § 121.417 and they must be identified to the passengers. If there is only one flight attendant or other qualified person

on board with passengers while parked at the gate. Both crewmembers would be needed to assist in the loading and unloading process. Furthermore, the commenter states that deplaning passengers would not be a viable option because airports do not have the proper facilities. Most airplanes are not met by a gate agent in rural Alaska airports, and airplanes do not pull up to a terminal. Therefore, the commenter states that a trained substitute would have to stay on board the airplane with the passengers while parked at the gate 100% of the time. The commenter states that the FAA has underestimated the training costs and wage costs for the option of using a substitute. The commenter estimates that this requirement would cost about \$2.9 million (costs not broken down) each year for all of the Alaskan commuter air carriers to comply.

FAA Response: While many of the affected airplanes are operated seasonally and do not fly in the winter, some operate during extreme weather conditions into airports that do not have terminals to use for deplaning. To the extent possible the FAA would like a flight attendant or pilot on board whenever passengers are on board. Since the affected 10- to 19-passenger-seat airplanes do not require a flight attendant, it would be inconsistent to require one only during ground operations. However, each of the affected commuter airplanes require two pilots for their operations. One can stay on board while the other does any necessary work off the airplane. Other options are to deplane the passengers or use a trained substitute.

The FAA recognizes that part 121 was written with the expectation that flight attendants would be available and that pilots would not be loading baggage or performing other duties outside the airplane. Therefore, the FAA is revising § 121.393 for airplanes for which a flight attendant is not required to allow a crewmember or qualified person to be on board or near the airplane. If the crewmember or qualified person is not on board the crewmember or qualified person must be near the airplane and in a position to adequately monitor passenger safety. Airplane engines must be shut down and at least one floor level exit must remain open to provide for the deplaning of passengers. This amendment is consistent with current FAA policy for refueling with passengers on board. The FAA has determined that this option is functionally equivalent to having a qualified person on board since these airplanes are small enough to monitor passenger compartments from outside the airplane.

VIA.10. Subparts N and O—Training Program and Crewmember Qualifications

Subpart N, Training. As the discussion earlier in this preamble points out, the issue of training has been the subject of separate rulemaking. However, several comments were received on training requirements.

Comments: AIA states that Notice 95-5 is virtually silent on training; however, this is an important part of the total picture. AIA states that the separate initiative on training should be reviewed in conjunction with this NPRM.

Raytheon echoes AIA's comments on training, and adds that successful implementation of the training actions would be expected to have a dramatic impact on future accident statistics. Training should be the principal focus for safety improvement together with future programs for safety system monitoring. Raytheon also states that while NPRM 95-5 was not intended to cover training, Notice 95-5 probably would not have been proposed if training were more effective.

Air Vegas comments that all additional flight training would have to be done in the aircraft because there is no Beech 99 simulator in existence. This would increase the hours for initial and transition training and nearly double training costs.

Fairchild Aircraft says that, under §§ 121.424 and 121.427 as well as part 121 Appendix E, windshear training must be performed in a simulator and that such simulators are not likely to be available to many commuter airline operators. This commenter adds that there is no evidence that the part 135 windshear program is inadequate.

Fairchild Aircraft recommends that §§ 121.424 and 121.427, as well as Appendix E, be amended to provide relief from windshear simulator training for certificate holders of turbopropeller airplanes with

are related to human (not equipment) error, there is a need for more simulator training among commuters, and part 135 aircrews must deal with a high number of regional landings and takeoffs as well as varied weather conditions.

Jetstream Aircraft Limited and American Eagle support the proposed rulemaking to strengthen part 135 crewmember training.

FAA Response: The comments on appropriate training requirements, while generally supportive of the FAA's goals in this rulemaking, are actually more relevant to the separate rulemaking addressed in section III.E, Related FAA Action. The windshear simulator training requirements only affect turbine powered airplanes (turbojets) on which windshear equipment is required by § 121.358.

Subpart O, Crewmember Qualifications. Because of the separate rulemaking previously discussed, the FAA did not propose any changes to subpart O except for the removal of an obsolete section (§ 121.435). Nonetheless, a number of comments were received.

Comments: RAA, ASA, Gulfstream, United Express, Big Sky Airlines, and an individual oppose the requirement that currently qualified first officers performing the duties of second in command obtain initial operating experience (IOE) under § 121.434. However, these commenters do support an IOE requirement for newly designated first officers and new hires. United Express recommends that air carrier proving runs be used for operations evaluation and that if, during the proving runs, an airline does not meet performance criteria, operations should terminate until a satisfactory fix is established.

American Eagle supports IOE requirements for all first officers and believes that the additional costs associated with such a requirement are worth it to ensure that these pilots are fully qualified.

RAA, ASA, and Gulfstream believe that a basis and criteria for "grandfathering" these current and qualified seconds in command can be the training records of each of these airmen as well as the flight records documenting their experience as first officers.

An individual commenter says that a precedent for grandfathering these pilots is the "N & O" exemptions held by certain 135 certificate holders which allows training under part 121 but does not require repetition of unique part 121 IOE for crews which have been conducting scheduled operations under part 135.

Fairchild Aviation recommends that § 121.437(a) be amended to recognize the fact that not all 10-19 passenger airplanes are large airplanes. This commenter says that this section should be changed to read, ". . . and, *if required*, an appropriate type rating for that aircraft."

FAA Response: The comments on appropriate crewmember qualification requirements are actually more relevant to the separate rulemakings addressed in section III.E, Recent FAA Actions. The concerns raised by these commenters have been considered in those rulemaking actions.

VI.A.11. Subpart P—Aircraft Dispatcher Qualifications and Duty Time Limitations: Domestic and Flag Operations

Requirements for dispatch systems and aircraft dispatcher qualifications are discussed in section V.F., Dispatch system.

VI.A.12. Subparts Q, R, and S—Flight Time Limitations and Rest Requirements: Domestic, Flag, and Supplemental Operations

Requirements for flight time limits and rest requirements are discussed in section V.D., Flight time limits and rest requirements.

VI.A.13. Subpart T—Flight Operations

Operational control. Sections 121.533 and 121.535 require each domestic and flag operation to be responsible for operational control and specify the responsibilities for aircraft dispatchers and pilots for

Emergency procedures. Parts 121 and 135 require that, when the certificate holder or PIC knows of conditions that are a hazard to safe operations, the operation must be restricted or suspended until the hazardous conditions are corrected. For a discussion of this issue, see "Emergency Operations (Proposed §§ 119.57 and 119.58)" later in this preamble.

Briefing passengers before takeoff. The FAA proposed to amend § 121.571(a) to bring over from § 135.117 requirements for additional passenger information for airplanes with no flight attendant. This additional information includes instructions on location of survival equipment, normal and emergency use of oxygen equipment for flights above 12,000 MSL, location and operation of fire extinguishers, and placement of seat backs in an upright position for takeoffs and landings. The FAA proposed that the affected commuters otherwise comply with the part 121 rules on passenger information. The printed cards would need to be revised or supplemented to provide information on flotation cushions or other required flotation devices once these devices are installed.

A small change was proposed for § 121.571(a)(3) to allow a flight crewmember (instead of a flight attendant) to provide an individual briefing of a person who may need assistance in the event of an emergency, in cases where an airplane does not have a flight attendant.

Comments: AACA disagrees with the FAA's cost estimate for the required passenger information cards and briefings. The commenter states that the FAA's cost estimate appears to be low. Alaskan air carriers would need to devise a more comprehensive information system due to the many nationalities and native languages in Alaska. Many local passengers are not native speakers of English or are not fluent in its comprehension. Briefing cards must be painstakingly translated into many Alaskan Native languages at great expense. Some air carriers have also had to translate into Japanese, Korean, and Russian for tourists from the Pacific Rim nations. Based on experience, the commenter states that the FAA's assumption of a 3-year life expectancy for information cards is high and that information cards normally last less than a year due to wear and theft. The commenter also estimates costs of \$26,000 for Alaskan commuter air carriers in the first year and \$4,224 each year thereafter to meet the requirement.

FAA Response: While the FAA recognizes the benefits of translating passenger information on briefing information, this has never been a requirement but an option undertaken by the operator to improve service and safety.

The 3-year life expectancy of briefing cards is based on past experience. There is nothing unique to Alaska that would warrant a deteriorated state sooner than within 3 years.

Part 135 10- to 19-seat airplane briefing card requirements are being incorporated into part 121. New cards need not be revised immediately and normal wear cycles prevail so that this rule would not impose additional costs.

Oxygen for medical use by passengers. Section 121.574 provides that a certificate holder may allow a passenger to carry and operate equipment for dispensing oxygen if, among other requirements, the equipment is furnished by the certificate holder. The proposal would require affected certificate holders to comply with § 121.574.

Under current § 135.91, the certificate holder may allow a passenger to carry and operate equipment for dispensing oxygen provided certain requirements are met. Section 135.91(d) contains a provision for permitting a noncomplying oxygen bottle provided by medical emergency service personnel to be carried on board the airplane under certain circumstances; this provision was not proposed to be carried forward into part 121.

Comments: AACA states that many medevac operations take place on board scheduled and on-demand flights. Without aviation oxygen available at village health clinics, the flexibility of § 135.91(d) would be lost if it is not carried forward into part 121. AACA recommends allowing a noncomplying oxygen bottle on aircraft operating solely within the State of Alaska. To prohibit this will mean medevac

proposed.

Retention of items of mass. Section 121.576 requires that certificate holders must provide and use a means to prevent each item of galley equipment and each serving cart, when not in use, and each item of crew baggage, which is carried in the crew or passenger compartment, from becoming a hazard. Section 121.577 prohibits a certificate holder from moving an airplane on the surface or taking off unless such items are secure. Sections 135.87 and 135.122 require certificate holders to ensure that such items are secure before takeoff. The FAA proposed that the affected commuters comply with § 121.577, which is substantively the same as § 135.122. No comments were received on this issue and the final rule is adopted as proposed.

Cabin ozone concentration. Section 121.578 sets maximum levels of ozone concentration inside the cabins of transport category airplanes operating above 27,000 feet. The affected commuters do not generally operate at these altitudes. The FAA believes that these rules should apply whenever the altitudes are exceeded. The FAA proposed to amend § 121.578(b) to delete the reference to transport category airplanes.

Comments: Commuter Air Technology states that it does not operate above 25,000 feet. The commenter asks if operation in part 135 now requires ozone monitors and if part 91 flights of 10 or more passengers operated above 27,000 require ozone monitors.

FAA Response: For operations at or below 27,000 feet the ozone requirements do not apply. The answer to both questions of the commenter is no. Part 91 and part 135 do not have ozone provisions. The final rule is the same as proposed.

Minimum altitudes for use of autopilot. Sections 121.579 and 135.93 establish minimum altitudes for use of autopilots. The two sections are similar; however, part 135 does not specify weather requirements for an approach. In a recent NPRM proposing to revise the minimum altitude for use of an autopilot (59 FR 63868, December 9, 1994), which is under consideration, the minimum altitude for autopilot use corresponds to that designated in the type design of the autopilot and stated in the Airplane Flight Manual (AFM). If the rule is adopted as proposed, the AFM would establish guidance that would be edited and approved in the air carrier's operations specifications.

Comments: Commuter Air Technology comments that it has aircraft without autopilots and questions how the rule would affect those aircraft.

AACA states that an NPRM published on December 9, 1994, will require the AFM to establish guidance that would be edited and approved in the affected air carrier's operations specifications.

FAA Response: If the airplane does not have an autopilot, § 121.579 does not apply.

Section 135.93 is similar to § 121.579; however, there are differences that would necessitate manual and training changes regarding the use of the autopilot.

The above mentioned proposal includes the recommendations of the Aviation Rulemaking Advisory Committee (ARAC). The FAA has proposed in that rulemaking that instead of the 500 ft. minimum stated in the regulations, the autopilot could be engaged at whatever the airplane flight manual says it is capable of (200 ft., 100 ft., etc.). Comments were favorable. If adopted, the results of that separate rule will apply to the affected commuters.

Observer's seat. Section 121.581 requires a certificate holder to make available a seat on the flight deck of each airplane for use by the Administrator while conducting routine inspections. Comparable § 135.75 requires, for inspections, a forward observer's seat on the flight deck or a forward passenger seat with headset or speaker. Because airplanes in the 10- to 30-seat range may not have an observer's seat on the flight deck, the FAA proposed to move the option of providing a forward passenger seat into part 121 and require compliance with part 121 for affected commuter operators. No comments were received regarding this issue and the final rule is adopted as proposed.

FAA Response: In response to the specific comment, if a certificate holder has no room on board an airplane to handle a wheelchair as carry-on baggage, the wheelchair may be checked as cargo baggage.

The Air Carrier Access Act is implemented in 14 CFR part 382. Aircraft accessibility requirements found in § 382.21 generally exempt aircraft operated under part 121 with fewer than 30 passengers and aircraft operated under part 135. The rule requires that these aircraft comply “to the extent not inconsistent with structural, weight and balance, operational and interior configuration limitations.”

The FAA anticipates that affected commuters will establish procedures in accordance with § 121.586. These procedures must be developed in accordance with § 382.21. Since operators under parts 121 and 135 are already in compliance with § 382.21, this rulemaking poses no new requirements other than establishing procedures for the carriage of passengers who may need special assistance in an emergency.

Carry-on baggage: The FAA proposed that the affected commuters comply with the § 121.589 carry-on baggage rule. This would require the preparation and approval of a carry-on baggage program.

Comments: Commuter Air Technology states that its aircraft have no carry-on baggage storage other than for a standard briefcase under the seat. According to the commenter, carry-on baggage is removed from passengers and placed in the pod upon entry. The interior is also placarded to require adequate securing of any interior cargo. AACA is concerned about the cost of a baggage scanning program.

FAA Response: Even if the aircraft allows only limited carry-on baggage, the certificate holder must still have a carry-on baggage program that complies with § 121.589. Interior cargo must be secured in accordance with § 121.285. (See discussion of § 121.285, Carriage of cargo in passenger compartments in this notice.) The final rule revises references in accordance with other changes in this rulemaking. Although affected operators must develop a program for their approved manuals, compliance will not result in any significant substantive operational burden.

Use of certificated airports. For a discussion of the issue of airports certificated under part 139, see section V.H., Airports.

VIA.14. Subpart U—Dispatching and Flight Release Rules

Flight release authority. Section 121.597, which applies to supplemental operations, requires a flight release signed by the pilot in command when the pilot and the person authorized by the certificate holder to exercise operational control believe that the flight can be made safely. Under part 135 releases are not required for either scheduled or on-demand flights. The FAA proposed requiring compliance with part 121. This requirement would apply to affected commuter airplanes when those airplanes are used in nonscheduled service with a passenger-seating configuration of 10 or more. No comments were received on this issue and the final rule is adopted as proposed.

Dispatch or flight release under VFR. Section 121.611 states that no person may dispatch or release an airplane for VFR operation unless the ceiling and visibility en route, as indicated by available weather reports or forecasts, are and will remain at or above applicable VFR minimums until the airplane arrives at the airport.

Comments: One commenter states that VFR is certainly an acceptable standard for sightseeing operations or for smaller carriers. Scenic Air states that airplanes typically used in the tour business can only operate day VFR. Grand Canyon Airways said 99 percent of its flights are VFR.

An individual states that the proposal on § 121.611 concerning VFR dispatch is unclear as to whether part 135 certificate holders will be required to comply. The commenter believes they should be covered by § 121.611 because it is the safe way and costs nothing.

FAA Response: In the final rule, affected commuters are required to comply with § 121.611. The FAA will develop additional operations specifications paragraphs and guidance for VFR tour operations, remote area operations (e.g. Samoa, Alaska) or other operations that are not capable of being conducted under IFR because they have no airways, IFR approaches, nav aids, etc.

FAA Response: Fairchild is correct, but the FAA is retaining the requirement and it will be necessary for affected commuters to work with airplane manufacturers to develop appropriate data for normal one-engine inoperative cruising speed for the airplane flight manual within 15 months. (See also section VI.A.4 Airplane limitations: Type of route for discussion of one engine inoperative data).

Operations in icing conditions. No comments were received on this proposal and the final rule is adopted as proposed. (See also VI.A.7. Equipment for operations in icing conditions).

Fuel reserves. Sections 121.639, 121.641, 121.643, and 121.645 contain fuel reserve requirements based on the type of operation to be conducted. These fuel reserve requirements do not distinguish between VFR and IFR operations. Section 121.639 requires 45 minutes of fuel reserve for domestic air carriers and for certain other air carrier operations.

Section 135.209 requires 30 minutes of fuel reserve for day VFR conditions and 45 minutes for night VFR conditions. Section 135.223 requires 45 minutes for IFR conditions.

The FAA proposed to require affected commuters to comply with the fuel reserve requirements of part 121.

Comments: Fairchild Aircraft comments that the FAA failed to take into consideration that § 121.639 requires fuel to fly to an alternate airport regardless of conditions, and finds that the proposed rule would have a detrimental impact economically, with no related gain in safety. Fairchild suggests that the FAA adopt § 135.209, which requires a 30-minute reserve for airplanes with fewer than 31 seats. Samoa Air comments that the proposal would require a 45-minute reserve for flights that average 30 minutes and is therefore unnecessary. Raytheon adds that its aircraft would have to give up one of 19 passengers to carry the additional fuel. Raytheon argues that smaller airplanes make shorter flights than big airliners, can operate to and from shorter runways, and are closer to an alternate airport. Therefore, the 10-19 seat airplane should be exempt from this requirement. Commuter Air Transport comments that all of its current route analysis is done on a 45-minute reserve.

AACA states that fuel reserve requirements for part 121 are 50 percent higher than for operating identical aircraft under part 135. According to AACA, the large fuel reserves required for dispatching smaller turboprop aircraft under part 121 make those aircraft marginally economical to operate when faced with competition from piston-powered twins operated under part 135.

At the Las Vegas public hearing, Twin Otter International stated that taking the VFR fuel reserve from 30 to 45 minutes is 150 pounds of fuel. That is reducing the capacity of the airplane by one passenger. The commenter is not sure there would be any safety benefit for sightseeing operations.

A pilot in Alaska comments that the part 135 fuel reserve requirements are adequate and that adding more reserves would degrade the already limited payload of many affected aircraft. Two commenters point out that operations that begin as VFR may end up IFR and that a 45-minute reserve provides more options, than a 30-minute fuel reserve.

Another individual recommends adopting the 45-minute fuel reserve. While it may be argued that there are a greater number of potential alternate airports within 30 minutes flying time of a destination airport that are capable of handling smaller, commuter-type airplanes, some of these potential alternates may not be acceptable from the standpoint of having weather reporting or aircraft rescue and firefighting capability. Additionally, once airborne, fuel time and the 30-minute reserve (some of which is unusable) might pressure some crews into poor operational situations. A standard 45-minute reserve provides more options.

One individual states that commuters can quantify the costs of the additional 15 minutes of fuel reserve, which cannot be significant. The standardization and extra fuel safety margin should be worth the cost.

the FAA retains the requirement for a 45-minute reserve whenever on an IFR flight plan, including under VFR conditions. The special rule allows relief to those who are truly VFR such as air tour operators and certain Alaskan operations. The relief applies only to 10–19 passenger seat operators with airplanes certificated after 1964. These smaller airplanes have more flexibility in VFR to find a suitable landing airport. This flexibility provides functional equivalency to part 121.

VI.A.15 Subpart V—Records and Reports

Subpart V prescribes requirements for the preparation and maintenance of records and reports for all certificate holders operating under part 121. Although many of the requirements are identical to or similar to the recordkeeping requirements in §§ 135.63 and 135.65, part 121 requires additional information, including new records and reports. Notice 95–5 proposed that affected commuters comply with the recordkeeping requirements of part 121.

Comments: Jetstream supports the application of subpart V to affected commuter operations.

RAA and ASA point out that § 121.715 on in-flight medical emergency reports is an obsolete requirement that should be eliminated. These commenters also contend that § 121.711 on retention of communication records would require affected commuters to record each enroute radio contact and keep the record for 30 days. According to these commenters, recent interpretations of this requirement have caused some certificate holders to establish elaborate recording systems. The commenters question the need for these records and suggest that the requirement be eliminated if it no longer serves a useful purpose.

FAA Response: The FAA agrees with commenters that § 121.715, relating to inflight medical emergencies, is obsolete and it has been deleted in the final rule. The commenters are correct that § 121.711 requires certificate holders to record each en route radio contact and keep the record for 30 days. This requirement is necessary for all certificate holders and has been retained in the final rule.

VI.B. Part 119—Certification: Air Carriers and Commercial Operators: Summary

Part 119 is a new part that consolidates into one part the certification and operations specifications requirements for persons who operate under parts 121 and 135. For the most part, these regulations are currently in SFAR 38–2, which replaced the certification and operations specification requirements in parts 121 and 135 in response to the Airline Deregulation Act of 1978.

Part 119 was originally proposed in 1988 (53 FR 39853; October 12, 1988; Docket No. 25713). Based on comments received on the definition of “scheduled operation” in that notice, the FAA published a Supplemental Notice of Proposed Rulemaking (SNPRM) in 1993 (58 FR 32248; June 8, 1993; Docket No. 25713). In Notice 95–5, the FAA republished the entire text of part 119 for comment because of the length of time since the first NPRM, the number of changes that were made to the proposed text, and the significance of the changes to part 119 that resulted from the review of commuter operations. Each section of part 119 that had been changed since the previous notices was explained in the preamble to Notice 95–5.

The first objective of part 119 is to establish a permanent guide in a new part that will enable persons who provide transportation of people or cargo to determine what certification, operations, maintenance, and other regulatory requirements they must comply with. A second objective is to set out procedural requirements for the certification process that apply to all certificate holders conducting operations under part 121 or part 135.

Part 119 accomplishes the following:

- (1) Incorporates much of SFAR 38–2 as Subparts A and B;
- (2) Revises certification procedures now in parts 121 and 135 and consolidates them as Subpart C;
- (3) Revises wet leasing requirements;

- requirements,
- (7) Rescinds part 127 and any requirements that pertain solely to helicopters in part 121, Subparts A through D; and
 - (8) Throughout part 121, Subparts A through D, and part 135, Subpart A, changes various references from CAB requirements to DOT requirements, changes terminology where needed, and makes incidental editorial changes.

Comments on Part 119

This section contains a summary and a response to the comments received on specific sections of part 119.

General Comments on part 119. USAir Express expresses concern over the 7-year time lag between when part 119 was originally introduced and the issuance of Notice 95-5. This commenter suggests that since many changes have occurred in the air industry and in the FAA, it may be best to issue subparts A and B of part 119, but to leave the requirements in subpart C in their current form in parts 121 and 135. NATA similarly contends that "the unknown effects of the requirements contained in part 119 are not adequately considered in Notice 95-5's cost-benefit analysis." Both of these commenters believe that the new requirements in part 119 impose unnecessary administrative burdens for certificate holders.

FAA Response: The FAA disagrees with the arguments presented by the commenters. For the most part, subchapter C is a recodification of the existing part 121 and 135 certification requirements for applicants for air carrier or operating certificates. In some instances, such as wet leases under § 119.53, recency of operation under § 119.63, and management personnel under §§ 119.65 and 119.67, where substantive changes are made, further discussion is contained elsewhere in this preamble.

Section 119.2—Compliance. The final rule contains a new § 119.2 that states that certificate holders shall continue to comply with SFAR 38-2 until 15 months after the publication date of the final rule or the date on which the certificate holder is issued part 121 operations specifications, whichever occurs first.

Section 119.3—Definitions. Section 119.3 contains definitions for the five kinds of operations conducted under parts 121 and 135 (Domestic, Flag, and Supplemental in part 121 and Commuter and On-demand in part 135). The FAA proposed to move the affected commuters to part 121 by changing the definitions for "Commuter operations," "Domestic operations," and "Flag operations." Comments on these definitions as they relate to affected commuters are discussed earlier in the preamble under "V.B. Applicability." Other comments on proposed definitions are discussed in this section.

General comments on definitions. There were several comments on the lack of definitions for certain terms in the proposed rule, and, in some cases, the lack of distinctions drawn among certain terms. Helicopter Association International (HAI) cites the lack of a definition for "common carrier," saying that it is hard to understand the difference between this and the "noncommon carrier." One commenter recommends that "nonscheduled operations" should substitute for "on-demand operations" and "supplemental operations" and that "scheduled operations" should replace the words "domestic," "flag," and "commuter" in order to simplify and standardize the regulations. Additionally, whenever the phrase "flag operations" needs to be distinguished, "scheduled foreign operations" could be used instead. Further, this commenter suggests that "since the term 'scheduled' now means any scheduled flight, there would be no need to define it, as the five round trips per week definition has been dropped."

FAA Response: The FAA disagrees with the comment that "scheduled" and "nonscheduled" should be substituted for the terms "domestic," "flag," "commuter," "supplemental," and "on-demand." These are five distinct kinds of operations that the FAA needs to identify and regulate separately according to the characteristics of each kind of operation and the terms are presently used throughout the regulations.

Comments: ALPA proposes that the FAA should discontinue the distinction between scheduled passenger and scheduled all-cargo operations and reserve that distinction for the nonscheduled all-cargo operation because there is little difference between the scheduled passenger and scheduled all-cargo operations.

FAA Response: The FAA has considered ALPA's suggestion; however, it is outside the scope of this rulemaking. However, the definition has been slightly modified so that passengers described in §§ 121.583(a) and 135.85 can be carried without the operation losing its all-cargo status.

"Commuter operations". The proposed definition for "commuter operations" limits the use of this term to scheduled operations in airplanes having 9 or less passenger seats or in any size rotorcraft.

Comments: Fairchild Aircraft states that applying the term "commuter operations" to operations with 9 or fewer passenger seats or to rotorcraft is inappropriate because this use of the term differs from the generally accepted meaning, i.e. frequent service over short stage lengths and service to small communities. According to the commenter, under this proposed definition, commuter category airplanes will no longer be used in commuter operations. The commenter also states that the proposed definition is inconsistent with the use of the term "commuter operator" in part 93. The commenter suggests that a new term be invented for scheduled operations with 9 or fewer passenger seats or rotorcraft.

FAA Response: As was discussed in Notice 95-5 and earlier in this preamble, the term "commuter" is presently used in several different ways. The FAA agrees with the commenter that the proposed definition does not accommodate all of the different uses of the term "commuter." However, operators of aircraft with 9 or fewer passengers do provide frequent service over short stage lengths and service to small communities. Therefore, the term is appropriate for these operations. The FAA acknowledges that this definition differs from the definition of "commuter operator" in part 93 and from the DOT definition. That inconsistency will continue.

"Domestic operation". Proposed § 119.3 defines "domestic operation" to mean any scheduled operation in specified airplanes "between any points within the 48 contiguous States of the United States or the District of Columbia" (2)(i); "between any points entirely within any State, territory, or possession of the United States" (2)(ii); or "between any point within the 48 contiguous States of the United States or the District of Columbia and any specifically authorized point located outside the 48 contiguous States of the United States or the District of Columbia" (2)(iii).

The only comment received on this proposed definition is the comment on its inclusion of a tour operation that departs from and returns to same point which is discussed earlier. One change in the proposed definition is replacing the words "any required crewmember" with the words "each crewmember" to be consistent with the treatment of the single-engine Otter airplane as previously discussed. Additionally, the final rule has been slightly modified to include some of the language currently used in SFAR 38-2.

"Flag operation". Proposed § 119.3 defined "flag operation" to mean a scheduled operation conducted in specified airplanes "between any point within the State of Alaska or the State of Hawaii or any territory or possession of the United States and any point outside the State of Alaska or the State of Hawaii or any territory or possession of the United States, respectively" (2)(i); or "between any point within the 48 contiguous States of the United States or the District of Columbia and any point outside the 48 contiguous States or the District of Columbia" (2)(ii).

Comments: AACA comments that currently Alaskan operations conducted under part 121 are conducted under the flag rules of part 121. According to the commenter, a number of Alaska operators currently hold operating authority and operations specifications to fly scheduled or charter service to Canada, and to the Commonwealth of Independent States (the Russian Federation). The commenter states that the rulemaking should clarify what operating rules are to be used for operations that previously operated solely under flag rules. According to the commenter, since most of the flights to the Russian Federation are on-demand, the impact of part 119 on these flights needs to be thoroughly analyzed.

“Maximum payload capacity”. The proposed definition for “maximum payload capacity” is the same as the one currently used in SFAR 38-2, except for the allowances for determining the standard average weights for crewmembers.

Comments: GAMA comments that the standard oil allowance of 350 pounds found in the definition of “maximum payload capacity” should be changed to coincide with the type certificated oil value. The commenter points out that the 350 pound value greatly exceeds any value found among present and future 10-19 passenger commuter airplane designs. Fairchild suggests that the definition refer to “full oil” and that the specific 350 pound allowance should be deleted. RAA states that the definition uses obsolete values for minimum oil and fuel and recommends that the FAA eliminate the distinction in the definition between aircraft with and without a maximum zero fuel weight and eliminate specific minimum weights for crewmembers, oil, and fuel.

FAA Response: In response to comments on the standard oil allowance, the FAA has revised the standard oil allowance in the definition of “maximum payload capacity” to add: “or the oil capacity as specified on the Type Certificate Data Sheet.” The FAA did not eliminate specific weights for crewmembers, oil, and fuel from the definition, as requested by commenters, because these weights are necessary guidelines for determining maximum payload capacity. They are not operational weight values but are used merely to establish the air operator certification and operation requirements for all-cargo and combination of cargo and passenger aircraft. This definition is not used in the computation of weight and balance.

“On-demand operation” and “Supplemental operation”. The definitions of “on-demand operation” and “supplemental operation” were rewritten for Notice 95-5 to make it clearer which operations fall into these categories. The proposed definitions did not change significantly from current rules or from the original 1988 NPRM, except for one important difference. Notice 95-5 does not change the basic dividing line between on-demand and supplemental operations. A configuration of more than 30 passenger seats or a payload capacity of more than 7,500 pounds is a supplemental operation, while a configuration of 30 or less passenger seats and a payload of capacity of 7,500 pounds or less is an on-demand operation. However, if a specific airplane with a passenger-seating configuration of 10 to 30 seats is used in domestic or flag operations as a result of this rule, any nonscheduled operation conducted with that airplane must be conducted under the part 121 supplemental rules, instead of under the on-demand rules of part 135.

Comments: Fairchild Aircraft suggests that airplanes’ switching between regulatory parts should not be difficult and asks that the FAA eliminate all unnecessarily burdensome conformity, equipment, and record checks.

FAA Response: This requirement is necessary because an airplane must be listed in a certificate holder’s operations specifications as either a part 121 or a part 135 airplane; it cannot be switched back and forth between parts without a major investment of time and resources by both the certificate holder and the FAA. Switching between parts entails many things, including airplane conformity checks, equipment checks, and record checks. These are all necessary checks that the FAA must perform to fulfill its safety oversight function.

Section 119.5—Certifications, Authorizations, and Prohibitions. This section identifies the type of certificate (air carrier or operating) the Administrator issues to certificate holders, depending on the nature of their operations, and specifies certain authorizations and prohibitions associated with those certificates for specific types of certificate holders.

Comments: A commenter claims that the distinction between the air carrier certificate and the operating certificate is ambiguous. He poses two questions: “Why would we prohibit a 737, 121 certificated, intrastate, common carriage operator (who presumably would have an operating certificate) from engaging in other common carrier operations?” The second question is “why would we prohibit a part 121 common carriage operator with an air carrier certificate from providing non-common carriage?”

be contained in each certificate holder's operations specifications. No comments were received on this issue and the final rule is adopted as proposed.

Section 119.9—Use of Business Names. In this section, the FAA proposed to prohibit certificate holders that operate airplanes under part 121 or 135 from using a business name other than the name appearing in a certificate holder's operations specifications. The FAA proposed that the name of the certificate holder conducting the operation must be displayed on the airplane and clearly visible and readable to a person standing on the ground at any time except during flight time, and that the means of displaying the name must be acceptable to the Administrator.

Comments: Gulfstream Air, NATA, RAA, SP Aircraft, and two individuals address the requirement to have the certificate holder's name on the aircraft. Four recommend that the requirement not apply to on-demand operations. One opposes the requirement because, as an on-demand operator, his customers often do not want the name of an airline appearing on the aircraft, but rather prefer to arrive in what is believed to be their corporate aircraft. One commenter supports the proposal but recommends that the name of the certificate holder should be near to and visible from the main cabin entry door, not just anywhere on the aircraft. Commenters request clarification of "clearly readable and visible" since this could imply that very large letters must be used. Also, three commenters indicate that the phrase "acceptable to the Administrator" needs to be defined.

FAA Response: The purpose of this requirement is for the FAA to be able to identify, primarily for purposes of ramp inspections, those who appear to have operational control of the airplane. Some carriers use names for their businesses other than their corporate name. These are often called "doing-business-as" or "DBA" names. All of a certificate holder's DBA names must be listed in its operations specifications. A certificate holder may also paint a DBA name on the outside of the aircraft. However, in order to be in compliance with this section, the certificate holder's name must also appear on the outside of the aircraft.

Because this regulation applies to airplanes ranging in size from a small reciprocating-engine-powered airplane to a Boeing 747, it is not practical for the FAA to define the size letters that would be required. Any means of identification which satisfies this requirement is acceptable, including signs temporarily affixed in windows or on the door or fuselage of the airplane.

The term "acceptable to the Administrator" is interpreted to mean acceptable to an authorized representative of the Administrator. In this case, a certificate holder's principal inspector would determine if the means of displaying the name is acceptable, based on written guidance from FAA Headquarters. The final rule is the same as proposed.

Section 119.21—Direct air carriers and commercial operators engaged in intrastate common carriage with airplanes. Section 119.21 contains the regulatory roadmap that requires domestic, flag, and supplemental operations to be conducted under part 121 and commuter and on-demand operations to be conducted under part 135. Section 119.21(a)(3) states that the Administrator may authorize or require that (1) Certain certificate holders conducting supplemental operations between airports that are also served by the air carrier's domestic or flag operations, conduct those operations under the domestic or flag rules; and (2) certain all-cargo operations that regularly and frequently serve the same two airports may be required to be conducted under the domestic or flag rules.

Comments: The National Air Carrier Association (NACA) recommends deleting "or require" in the second sentence of proposed § 119.21(a)(3). The language goes far beyond the current language of SFAR 38-2.4(a)(3) or part 121 in its application to supplemental passenger operations conducted "between points that are also served by the certificate holder's domestic or flag operations." The preamble does not provide sufficient explanation or justification to require the application of domestic or flag operating requirements to supplemental passenger operations that are operated over routes where an operator also has domestic or flag operations. There are sufficient economic and operational safeguards already in place to preclude abuse. NACA believes that what "may be required" will quickly become "what is required," with the FAA unilaterally imposing the requirement to operate certain nonscheduled passenger

external-load operators and agricultural aircraft operators must comply with part 133 or part 137 of the FAR, respectively.

Notice 95-5 proposed to rescind part 127 because rotorcraft operators that previously operated under part 127 are directed in § 119.25 to conduct those operations under part 135. Part 135 has been more recently updated and, therefore, provides a more appropriate level of safety for rotorcraft operators than part 127.

Comments: HAI opposes removing part 127 at this time. HAI supports a review and update of this part in the future, but states that to simply remove this part now would be to allow the certificate-issuing district office unlimited discretionary powers in the design of appropriate operations specifications.

FAA Response: Part 127 is not a current part because SFAR 38-2 directed all rotorcraft operators to conduct their operations under part 135. Appropriate operations specifications for each certificate holder operating either airplanes or any size rotorcraft are developed by FAA Headquarters. The standard paragraphs are completely designed by Headquarters, while nonstandard paragraphs are reviewed and concurred on by Headquarters. Therefore, the certificate-holding district office does not have unlimited discretionary powers.

Section 119.33—General requirements. In § 119.33 the FAA proposed that applicants for certificates be required to conduct the proving tests required for certification under the appropriate requirements of part 121 or part 135. The purpose of the tests is to demonstrate (as one of the last steps in the certification process) that the applicant is qualified and eligible to receive a certificate. The change permits applicants to complete the certification process without having to obtain either a deviation or certification to conduct operations under part 125. The FAA also proposed to amend §§ 121.163, 125.1, and 135.145 to make the proving test requirements consistent in those parts. No comments were received on these § 119.33 issues and the final rule is adopted as proposed.

Section 119.35—Certificate application. This section requires a certificate applicant to submit the application 90 days prior to the intended date of operation instead of the current standard of 60 days. This length of time accounts for the actual amount of time required by the FAA to properly process applications and to allow for agency documentation in the formal review period.

Paragraphs (c) through (h) of this section are a recodification of §§ 121.47, 121.48, and 121.49, which deal generally with the disclosure of financial information and of people/entities that would control the new certificate holder, applicable only to two categories of carriers: those who are not air carriers and those applying for authority to engage in intrastate common carriage but have not undergone fitness review by the Department of Transportation. The FAA believes that these requirements are crucial to ensuring safety by providing a check of financial, management, and other information about of the certificate holder and his or her ability to conduct safe operations.

Comments: NATA expresses concern about the utility of requiring detailed financial reporting, because safety problems are “more appropriately discovered through operational inspections” than through financial data. SP Aircraft comments that requiring detailed financial reporting seems excessive for small craft operators of on demand service since this requirement has not been proposed before now, and no explanation was provided for it in Notice 95-5. This commenter shares the concern that the reporting of financial records would in no way enhance the safety of operations that the FAA claims this proposal serves. Additionally, the commenter criticizes the requirement for insurance in that requiring the applicant to have insurance prior to submitting the application is an unnecessary burden due to the uncertain time span before application and review is complete. Thus, it recommends requiring that insurance should be in place before operations begin.

indicate similar change operations under part 135 and so forth. The FAA believes these requirements are necessary because financial information, management information, and information concerning who controls the certificate holder can reveal potential shortcomings on the applicant's ability to conduct a safe operation. The requirement for insurance information in § 119.35(h)(7) provides that the applicant report the period of coverage, not that it be in effect before the application is submitted. Therefore the date that insurance coverage begins can be coordinated with the estimated date that operations begin. In order to make it clear that § 119.35 (c) through (h) apply only to applicants who are commercial operators, the final rule includes cross references within paragraphs (c) through (h), and paragraphs (g) and (h) have been switched.

Section 119.41—Amending a certificate. FAA proposed new procedures for making changes to the operating certificate. These procedures, modeled after 49 U.S.C. § 44709 and similar to the procedures used to amend operations specifications, would standardize the amendment process. Applications for amendments to certificates would have to be submitted 15 days in advance of the time the operator wants the amendments to be effective, unless the Administrator approves a shorter period when circumstances warrant. No comments were received on this issue and the final rule is adopted as proposed.

Section 119.47—Maintaining a principal base of operations, main operations base, and main maintenance base; change of address. Section 119.47 requires that a certificate holder maintain a principal base of operations and allows the certificate holder to establish a main operation and main maintenance base. Written notification must be provided to the certificate-holding district office before establishing or relocating a principal base of operation, a main operations base, or a main maintenance base. The proposed terminology clarified that the FAA needs to know the location of the primary point of contact between the FAA and the certificate holder. Certificate holders would no longer be required to report changes of address for business offices. No comments were received on this issue and the final rule is adopted as proposed.

Section 119.49—Contents of operations specifications. Section 119.49 requires that each certificate holder obtain operations specifications that list other business names under which the certificate holder may operate. Under part 121, there are no restrictions on the use of alternate business names on their operating certificates. Part 135 currently requires certificate holders to list their alternate business names on their operating certificates. The FAA proposed to require that alternate business names be shown on the operations specifications rather than on the operating certificate. No comments were received on this issue and the final rule is adopted as proposed.

Section 119.49 adds the requirement that operations specifications contain a reference to the economic authority issued by the OST. The economic authority issued by the OST is not a new requirement; the FAA proposed this reference to clarify that the requirement still exists. No comments were received on this issue and the final rule is adopted as proposed.

Section 119.49 also requires a certificate holder conducting domestic, flag, or commuter operations to obtain operations specifications that list each type of aircraft authorized for use and each aircraft's registration markings and serial number. Under part 121, the requirement to list registration markings is not required for domestic, flag, or commuter operations. The FAA proposed this requirement in the interest of consistency and to facilitate FAA enforcement and surveillance functions. No comments were received on this issue and the final rule is adopted as proposed.

Section 119.51—Amending Operations Specifications. Under § 119.51 applications for amendments to operations specifications would have to be submitted 15 days in advance for minor or routine amendments; however the FAA proposed to require that certificate holders file applications to amend operations specifications at least 90 days before the date proposed by the applicant for the amendment to become effective in cases of mergers; acquisition or airline operational assets that require an additional showing of safety (e.g., proving tests); changes in the kind of operation as defined in § 119.3; resumption of operations following a suspension of operations as a result of bankruptcy actions; or the initial introduction of aircraft not before proven for use in air carrier or commercial operator operations. It has been the FAA's experience that these types of major changes do take at least 90 days for the agency to determine

Comments: USAir Express, RAA, Mesa, ASA address the required lead times proposed for making either desired or directed changes to operations specifications. Commenters state that the proposed requirements to file an air carrier-desired operations specifications change 90 days before the effective date is excessive. Additionally, the requirement to respond to changes in operations specifications within 7 days when directed by the Administrator and complete implementation within 30 days is unreasonable.

An individual, ASA, and RAA indicate that the proposed language in § 119.51(d) would not permit the continuation of the practice of staying the effectiveness of an amendment when an air carrier submits a petition for reconsideration. The commenters recommend that the petition for reconsideration stay the effective date of an amendment pending the final review of the petition.

FAA Response: In response to comments that a request to change operations specifications must be filed 90 days in advance of the desired effective date, the FAA will add “unless a shorter time is approved” to § 119.51(c)(1)(i) so as not to imply that a carrier must allow the full 90 days. The rest of paragraph (c) reflects current part 121 and part 135 language and is adopted as proposed.

Since § 119.51(d)(3) clearly states that, if a petition for reconsideration is filed within 30 days and if no emergency situation exists, the effectiveness of an amendment to operations specifications issued by the certificate-holding district office is stayed pending final review of the petition. The procedures for emergency situations, spelled out in paragraph (e), are not substantially different than currently found in §§ 121.79 and 135.17. Therefore there will be no changes to current procedures as a result of new § 119.51 (d) and (e).

Section 119.53—Wet leasing of aircraft and other transportation by air arrangements. Proposed § 119.53 on wet leasing would be revised from current § 121.6 to do the following: (1) clarify that the leasing requirements pertain only to wet leasing (which is defined in § 119.3 as a lease of an aircraft that includes the provision of any crewmember); (2) extend the wet leasing requirements to part 135 operations; (3) prohibit a wet lease from a foreign air carrier or any other foreign person; (4) prohibit a wet lease from any person not authorized to engage in common carriage; (5) specify that the Administrator, upon approval of the wet lease, would determine which party to the agreement has operational control and would amend the appropriate operations specifications of both parties, if necessary; and (6) allow a wet lease charter flight to transport passengers who are stranded because of the cancellation of their scheduled flight, provided that the wet lease flight is authorized by OST or the Administrator, as applicable, and that the charter flight is conducted under the rules applicable to a supplemental or on-demand operation. These clarifications reflect for the most part current administrative procedures.

Comments: NACA proposes reorganization of § 119.53, including a new paragraph regarding operations specifications for short term wet leases (short term substitute service) that could occur without prior FAA approval in a situation where there is insufficient time to permit compliance with the usual requirements for a wet lease.

USAir Express sees this issue as an example of part 119 addressing changes which are not relevant to the goal of bringing commuter operations up to the standards of part 121, and imposing new restrictions on wet lease activities at the same time. This company finds fault with the fact that § 119.53 requires certificate holders conducting operations to be held to the same operations authorities as certificate holders arranging for the substitute operations.

British Airways objects to § 119.53 because it prohibits any wet leasing to U.S. carriers from foreign air carriers without any safety justification. British Airways sees this prohibition as interfering with healthy competitive relationships between carriers in an international market. Japan Airlines agrees with British Airways’ point and adds that this “discriminatory” prohibition contradicts the Department of Transportation’s economic regulations providing for wet leasing of aircraft by foreign air carriers to U.S. air carriers. Japan Airlines argues that foreign air carriers are permitted to operate aircraft in the U.S. only if they meet rigorous requirements of part 129 of the FAA regulations, which would imply that these aircraft are safe. Japan Airlines also claims that this regulation might be contrary to a friendship treaty between the United States and Japan. The company suggests that the FAA address any specific foreign carrier safety concerns with something other than a blanket prohibition of the type proposed.

Section 119.55—Obtaining deviation authority to perform operations under a U.S. military contract. Proposed § 119.55 establishes a new procedure to obtain deviation authority to perform under a U.S. military contract. This would require the certificate holder to submit this deviation authority request to DOD's Air Mobility Command (AMC), who would review the request and, in turn, forward it and the AMC recommendation on to the FAA for final review. The logic behind having the AMC review this is to provide an additional, and more efficient, evaluation by a more qualified authority on the needs of the military operation.

Comments: One commenter expresses concern about the FAA's need to have the AMC serve as an extra check on FAA knowledge of deviation authority. The commenter states that adding another agency to the process does not serve the interest of readiness, for during military operations, the demands from the military come "fast and furious with many changes."

FAA Response: As the FAA explained in Notice 95-5, during the Desert Shield/Desert Storm operations, the agency was inundated with requests for deviations. The AMC has the resources to consolidate these requests, identify the specific regulations from which relief is sought, and evaluate the requests to determine whether the relief sought would be needed to accomplish the military mission. This procedure will enable the agency to process these requests more efficiently, should the need arise in the future.

Emergency Operations (§§ 119.57 & 119.58). These two proposed new sections generally recodify §§ 121.57(c), 121.557, 121.559, and 135.19. Section 119.57 addresses emergency situations where it is impossible for the certificate holder who intends to conduct emergency operations to act without thorough and complex planning, such as during natural disasters like floods or earthquakes. Section 119.58 is tailored to emergency operations where thorough and complex planning are inherently impossible due to the critical issue of time and the nature of the emergency.

Comments: Three commenters express concern about this proposed section. One of the commenters believes that this consolidation of two related yet distinct categories would cause confusion: "Section 119.57 relates to certificate authority to conduct certain operations on an emergency approval basis, while § 119.58 relates to emergency operational situations that may require emergency deviation from prescribed procedures and methods, weather minimums, and FARs to the extent required for *flight safety*." The commenter recommends renaming § 119.57 to read "Obtaining Emergency Deviation Authority to Perform Unapproved Operations" and § 119.58 to be "Operational Emergencies Requiring Immediate Decision and Action." Additionally, the commenter expresses concern that § 119.58(b) needs to be modified to more clearly reflect dispatcher capability/responsibility, joint responsibility, and a cross-check mechanism to ensure critical operational decisions are not made at the exclusion of safety.

Another commenter states that while he supports the NPRM, he believes that this recodification would cause greater confusion and contradict the purpose of existing safety rules because it goes beyond the scope of the NPRM. He claims that "[t]he two types of 'Emergency Authority' are of totally different contexts, are truly irrelevant to each other and there is no apparent advantage to this proposed modification"; hence, this proposed action is "clearly unwarranted."

The Airline Dispatchers Federation objects to the recodification of §§ 121.557, 121.559, and 135.19 as new § 119.58 on the grounds that emergency procedures are an operational issue, not a certification issue and thus should be located in the operational rules of part 121 and 135.

FAA Response: The FAA accepts the commenters' suggestions. Therefore § 119.58 does not appear in final part 119. Instead §§ 121.557, 121.559 and 135.19 will be retained in parts 121 and 135. However, the substance of proposed § 119.57 on obtaining deviation authority for certain emergency operations does not appear in current part 121 or part 135. Therefore, this section is retained in the final rule. This new section will provide procedures for such situations as the recent hurricane in the U.S. Virgin Islands. Deviation authority was needed in order to allow rescue and supply flights into and out of damaged airports.

the carrier should be required to surrender the obsolete copies to the FAA. This would preclude the chance of outdated operations specifications being in the hands of the "field operators."

FAA Response: It is the responsibility of the certificate holder to have procedures in place to ensure that the most current copies of the operations specifications are adequately and accurately distributed. The FAA is not requiring that outdated operations specifications be surrendered to the FAA because of the administrative burden that such a requirement would entail. However, the FAA has decided to incorporate into § 119.61 a new paragraph (c), which contains the § 135.35 language for surrender of operations specifications and certificate if a certificate holder terminates business.

Section 119.63—Recency of operation. Proposed § 119.63 would prohibit a certificate holder from conducting a kind of operation if that kind of operation has not been conducted for a period of 30 consecutive days. The certificate holder must advise the Administrator at least 5 consecutive calendar days prior to resumption of that kind of operation and make itself available for any FAA reexamination that the FAA considers necessary.

Comments: Eight commenters address this proposed requirement. One says that 30 days is too short a period and recommends a 6–12 month period. NACA recommends a 6-month period. Comair comments that the requirement is burdensome to active air carriers wanting to conduct supplemental operations; this commenter says that the requirement should be changed to apply to certificate holders or air carriers who have not conducted *any* operations, not just a particular kind of operation, in the previous 30 calendar days. A similar comment is made by another individual. NACA comments that this requirement is burdensome to air carriers conducting any type of operation (domestic, flag, or supplemental), especially to carriers who provide these services under short-term, short notice wet leases. USAir Express states that the proposed rule would seriously impact the ability of part 121 domestic and flag operators to conduct occasional supplemental operations since these operations are often required on less than 5 days notice. Also, since many part 121 certificate holders conduct their supplemental operations using the same procedures as their scheduled operations, there is no benefit from this requirement. SP Aircraft says that the requirement would be burdensome to on-demand small aircraft operators and to the FAA and that the rule should provide relief for these certificate holders.

Mesa and RAA point out that the proposed rule is unclear in its use of the term "kind of operation" and recommend that the FAA define this term.

FAA Response: In response to comments; the FAA has made the following changes to § 119.63 in the final rule:

If part 121 and part 135 scheduled operators do not conduct scheduled operations for more than 30 days, the 5-day notification provision would apply. For part 121 and 135 scheduled operators, no notification is required to conduct supplemental or on-demand operations provided they continue to conduct scheduled operations without being dormant for more than 30 days.

Part 121 supplemental operators or part 135 on-demand operators who have not conducted supplemental or on-demand operations for more than 90 days must notify the FAA at least 5 days before resuming operations.

In response to the comment to define "kind of operations," § 119.3 defines five kinds of operation as one of the various operations a certificate holder is authorized to conduct as specified in the operations specifications; that is, domestic, flag, supplemental, commuter, or on-demand.

Management Requirements (Proposed sections 119.65 through 119.71). Notice 95–5 proposed to consolidate management personnel requirements for operations conducted under part 135 or part 121 into new part 119 and to apply management personnel requirements to domestic and flag operations. The management personnel requirements for operations conducted under part 135 (§§ 119.69 and 119.71) would be substantially the same as those currently in §§ 135.37 and 135.39. The management personnel requirements for operations conducted under part 121 (§§ 119.65 and 119.67) would be similar to those currently in §§ 121.59 and 121.61, which now apply only to supplemental operations.

for positions and number of positions for management personnel, including the director of safety.

Director of operations. The FAA proposed for § 119.67(a) to require a director of operations to have both 3 years experience as a PIC of an aircraft under part 121 or part 135 and 3 years supervisory experience in a position that exercised control over any operations conducted with aircraft under part 121 or part 135.

In the case of a person becoming a director of operations for the first time, the FAA proposed that the PIC experience in large aircraft be recent, i.e., 3 years of experience within the past 6 years. (See proposed § 119.67(a)(3)(i).) Additionally, for all directors of operation under part 121, the minimum of 3 years of supervisory or managerial experience must have been obtained within the last 6 years. (See proposed § 119.67(a)(2).)

Additionally, for operations conducted under part 135, the FAA proposed that the director of operations have the following experience:

(1) At least 3 years of supervisory or managerial experience within the last 6 years, in a position that exercised operational control over any operations conducted under part 121 or part 135; or

(2) For a person with previous experience as a director of operations, at least 3 years experience as a PIC of aircraft operated under part 121 or part 135; or for a person becoming a director of operations for the first time, the 3 years of PIC experience must have been obtained within the past 6 years.

Director of maintenance. To standardize the certificates required for the director of maintenance, proposed § 119.67(c) and 119.71(e) would require that a director of maintenance hold a current mechanic certificate with both airframe and powerplant ratings.

Also, the requirement in present § 135.39(c) that the required experience in maintaining aircraft must include the recency requirements of § 65.83 has been added to proposed § 119.67(c) and carried over to proposed § 119.71(e).

Chief pilot. Proposed § 119.71(c)(1) and (d)(1) omitted the word "current" from existing § 135.39(b)(1) and (b)(2) because these pilot certificates no longer have an expiration date and are revoked only for cause. The words "and be qualified to serve as PIC in at least one type of aircraft used in the certificate holder's operation" are added to clarify that the chief pilot must meet recency of experience requirements and medical requirements.

In addition to holding the appropriate certificate, in order to be eligible to be a chief pilot in part 121 or 135 operations, a person must have at least 3 years experience as a PIC of aircraft operated under parts 121 or 135. However, if that person is becoming a chief pilot for the first time, the 3 years experience must have been obtained within the previous 6 years.

Chief inspector. Proposed § 119.67(d) requires a chief inspector for each operator conducting part 121 operations. In addition to the existing eligibility requirements, the chief inspector would be required to have at least 1 year of experience in a supervisory position maintaining large aircraft.

Deviation authority. Proposed §§ 119.67(e) and 119.71(f) authorize the Manager of the Flight Standards Division in the region of the certificate-holding district office to authorize a certificate holder to employ a person who does not meet the qualifications in proposed §§ 119.67 or 119.71. For a certificate holder or applicant that wants to employ a person who does not hold the required airman certificate (e.g., ATP certificate, commercial pilot certificate, airframe and powerplant certificate), the deviation authority sections would not cover such a lack of airman certification situation. The deviation authority provides a means for competent and qualified personnel who do not meet the management personnel qualifications to be employed in required positions.

Comments: A number of commenters responded to the proposed management requirements for part 119. These are discussed below.

the mainline Safety Vice President; if a code sharer does not have a director of safety, then code-sharing pilots should have access to the mainline safety organization. ALPA also recommends that the director of safety maintain a toll free telephone hotline. In addition, ALPA recommends that the director of safety's qualifications include at least 3 years of supervisory experience and possession of one of the following: an Airline Transport Pilot (ATP) license, Airframe and Powerplant (A & P) license or Dispatcher license, or demonstration of other approved equivalent aeronautical training.

Fairchild states that a separate director of safety position is unnecessarily burdensome and that safety is a concern of all managers. This commenter recommends changing § 119.65(a) so that the director of safety is not required to be a full-time position.

Comair, ASA, Gulfstream, and RAA say that § 119.67 does not provide any qualification requirements for the director of safety. These commenters request that the FAA permit certificate holders to designate directors of safety based upon their needs and without an FAA approval process.

Big Sky Airlines and NATA recommend that smaller certificate holders be allowed to combine the director of safety position with an already existing position. Metro International Airways also points out the burden of this requirement on small certificate holders (e.g., those with 10-15 employees or one or two aircraft). This commenter recommends that these certificate holders be allowed to determine which management personnel, especially the director of safety and chief inspector, are needed and to combine these and other positions as well.

One commenter recommends that smaller operations be permitted to employ contracted or part-time safety officers who could act for more than one carrier. This could reduce these certificate holders' financial burden associated with hiring additional personnel.

One commenter recommends that the director of safety have direct communication paths with dispatch, maintenance, flight attendant, and ground operations.

Samoa Air also points out that the requirement for additional management personnel for certificate holders with three or fewer aircraft is burdensome and that a proper internal evaluation program should keep management informed of the certificate holder's safety status.

One commenter says that § 119.69 does not require a part 135 certificate holder to have a director of safety and that this position should be required for these certificate holders.

One commenter recommends that the director of safety be excluded from enforcement action similar to the Aviation Safety Reporting System under § 91.25.

Inter Island recommends that the safety officer be any line pilot with 6 months experience with the company and that this position be kept from the working ranks of line pilots. According to the commenter, this function should not be given to the chief pilot or director of operations.

Other comments on management requirements: USAir Express says that the requirements of this proposed section are burdensome to large certificate holders because it imposes requirements which are designed for small certificate holders onto these large certificate holders. This commenter states that large certificate holders might have many positions at the Vice President or Director's level to fulfill these management functions that a small certificate holder would fulfill through the positions of director of operations, director of maintenance, chief pilot or chief inspector. This commenter also notes that the management of large carriers is more complex, involving knowledge of such areas as labor relations, legal issues, finance, and quality assurance. To assume that these subjects can be mastered while also obtaining the required number of years of experience for each management position is unrealistic. Finally, this commenter objects to the explanation of deviation authority regarding the allowance of unlicensed persons to hold management positions and says that it is inconsistent with the language of the proposed rule itself.

Fairchild Aircraft finds § 119.67 to be more stringent than its corresponding section in part 121 (§ 121.61). This commenter suggests that § 119.67(a)(1) be changed to allow the director of operations

and continue to use existing directors of operations, chief pilots, and directors of maintenance.

Metro International Airways states that the addition of management personnel would have a significant impact on operators that only operate two or three affected aircraft. The positions of chief inspector can be handled effectively by the director of maintenance. With such a small fleet of aircraft, the chief inspector would spend many hours idle. Also, a small commuter is more likely to contract out most, if not all, maintenance functions. In this situation, the director of maintenance could easily oversee that all work is completed to FAA standards and signed off by an appropriate person with an IA rating.

The commenter also opposes the proposed increase in management experience, indicating it will have a significant impact on small and proposed commuter airlines. Not only will higher wages be needed to attract those applicants that have the necessary experience, but the operators will need to lure those who qualify from secure positions within the industry. The commenter requests that the FAA define "large," stating there is a difference between a B747 and a Beech 1900C. The commenter recommends that the FAA retain the part 135 provision that allows the combinations of one or more of the required management personnel. As the airline grows it is understandable that the management functions would separate and the manager's experience level would rise. The addition of a chief inspector and a director of safety would create a top heavy airline that could not operate at a reasonable cost. Combining these positions must be allowed so new entrants with small fleets will have the chance to build an organization proudly serving the public and the public's interest.

American supports modifying the minimum requirements for director of operations, chief pilot, director of maintenance, and chief inspector under § 135.37 operations to reflect part 121 standards.

One commenter objects to the proposed requirement that a director of maintenance have 5 years experience in the past 5 years because it could disqualify those in management positions who may have been the victims of downsizing and companies going out of business.

One commenter disagrees with the 6-year currency requirement for the 3 years as PIC (under proposed § 119.67(a)) for a person becoming a director of operations for the first time. This commenter believes that PIC time is much more relevant to a director of operations' administrative responsibilities and that the currency requirement should apply to the chief pilot, whose function is much more technical. This commenter also disagrees with proposed § 119.71(c)(1) and (d)(1) which exempts the chief pilot from being qualified to serve as PIC in operations conducted under part 121. He believes that since the chief pilot is directly responsible for the proficiency of the pilots, he should be able to serve in this capacity.

Commuter Air Technologies says that 4 years in an aircraft type is more important than 4 years in maintaining a large aircraft as qualification for chief inspector. This commenter adds that small certificate holders rely on senior maintenance personnel, such as, director and chief inspector, for technical and administrative leadership and that experience in aircraft type would better provide this type of experience and skill as opposed to experience in maintaining large aircraft. Similarly, one commenter objects to the use of the phrase "large aircraft" when many commuter predecessors are not "large" aircraft (by the definition of SFAR 41); this could exclude qualifying excellent candidates from such management positions as director of operations, chief pilot, and director of maintenance.

FAA Response: The FAA contends that most currently employed directors meet the new standards. For those directors who do not, § 119.67(e) allows operators to request authorization from their district office for the continued employment of those directors. However, note that §§ 119.67(e) and 119.71(f) provide for exceptions from experience requirements, but not from requirements to hold necessary certificates. The FAA anticipates that most operators whose directors do not meet the new requirements will request authorization and that those requests will be granted. The FAA agrees that in some cases the proposed recency requirements would place an unnecessary burden on those directors who may have extended periods of unemployment prior to being hired. Thus, for the final rule, the FAA is changing some of the recency requirements. The final rule also standardizes the language as much as possible between operations and airworthiness management positions. The final rule gives relief for those operators who do not operate large aircraft.

The major barriers have told FAA that they already have established this position and are already fulfilling this function. For other operations, § 119.65(b) provides flexibility for establishing this position.

Director of Operations:

Section 119.67 requires 3 years of experience as PIC of a large airplane operated under part 121 or part 135 of this chapter when the certificate holder operates large airplanes. If the certificate holder uses only small airplanes in its operation, the experience may be obtained in either large or small airplanes. For first time applicants, both §§ 119.67 and 119.71 require that the 3 years PIC experience must have been obtained within the past 6 years.

Chief Pilot:

Section 119.67 requires 3 years of experience as PIC of a large airplane operated under part 121 or part 135 of this chapter when the certificate holder operates large airplanes. If the certificate holder uses only small airplanes in its operation, the experience may be obtained in either large or small airplanes. For first time applicants, both §§ 119.67 and 119.71 require that the 3 years PIC experience must have been obtained within the past 6 years.

Director of Maintenance:

Section 119.67 requires 3 years of experience within the last 6 years in maintaining or repairing aircraft. Section 119.71 requires 3 years of experience within any amount of time in maintaining or repairing aircraft. The requirement in § 119.67(c)(4)(i) that the director of maintenance have experience in maintaining "large aircraft" has been changed to "aircraft with 10 or more passenger seats" to provide for maintenance experience acquired by work for an affected commuter.

Chief Inspector:

The requirement in § 119.67(d)(2) and (d)(3) that the chief inspector have experience in maintaining "large aircraft" has been changed to "aircraft with 10 or more passenger seats" to provide for maintenance experience acquired by work for an affected commuter.

Derivation and distribution tables. The purpose of the revisions to part 121, Subparts A, B, C, and D, and part 135, Subpart A, is to delete all sections which have been moved to part 119, such as requirements using outdated terminology. Subparts B, C, and D, and certain sections of Subpart A of part 121 are entirely deleted as well as certain sections of subpart A of part 135 because these requirements are either obsolete or have been moved to proposed part 119. SFAR 38-2 terminates 15 months after the date of publication of this final rule and many of its provisions have been moved to part 119. Also part 127 is deleted as discussed above under "§ 119.25- Rotorcraft operations." Table 3 is a derivation table, showing the origin and current source in SFAR 38-2, part 121, or part 135 of many of the new sections in part 119. Table 4 is a distribution table, showing the location in part 119 for each section removed from part 121, part 135, and SFAR 38-2.

Table 3.—Derivation Table for Part 119

New section	Based on
Subpart A:	
119.1(a)	New language.
119.1(b)	SFAR 38-2, Section 1(a).
119.1(c)	New language.
119.1(d)	New language.
119.1(e)	New language.
119.2	New language.
119.3	SFAR 38-2, Section 6 and new language.
119.5(a)	SFAR 38-2, Section 2(a).
119.5(b)	SFAR 38-2, Section 2(b).
119.5(c)	New language.

119.5(j)	135.55.
119.7(a)	SFAR 38–2, Section 3.
119.7(b)	121.23, 121.43.
119.9(a)	135.29.
119.9(b)	New language.
Subpart B:	
119.21(a)	SFAR 38–2, Section 4(a), 121.3.
119.21(b)	SFAR 38–2, Section 4(b).
119.21(c)	New language.
119.23(a)	SFAR 38–2, Section 5(a).
119.23(b)	SFAR 38–2, Section 5(b).
119.25(a)	SFAR 38–2, Section 4(c), 5(c), and (d) and new language.
119.25(b)	SFAR 38–2, Section 4(c), 5(c), and (d) and new language.
Subpart C:	
119.31	SFAR 38–2, Section 1(c), 2(a) and (b), 121.3, and 135.5.
119.33(a)	SFAR 38–2, Section 1(c), 2(a) and (b), 3, 121.3, 135.5, 135.13(a).
119.33(b)	SFAR 38–2, Section 1(c), 2(a) and (b), 3, 121.3, 135.5, 135.13(a).
119.33(c)	SFAR 38–2, Section 1(c), 2(a) and (b), 3, 121.3, 135.5, 135.13(a).
119.35(a)	121.26, 121.47(a), 135.11(a).
119.35(b)	121.26, 121.47(a), 135.11(a).
119.35(c)	121.47(a).
119.35(d)	121.47(b).
119.35(e)	121.47(c).
119.35(f)	121.47(d).
119.35(g)	121.48.
119.35(h)	121.49.
119.37(a)	121.25(a), 121.45(a), 135.11(b)(1) and new language.
119.37(b)	121.25(a), 121.45(a), 135.11(b)(1) and new language.
119.37(c)	121.25(a), 121.45(a), 135.11(b)(1) and new language.
119.37(d)	121.25(a), 121.45(a), 135.11(b)(1) and new language.
119.37(e)	121.25(a), 121.45(a), 135.11(b)(1) and new language.
119.39(a)	121.27(a)(2), 121.51(a)(3), 135.11(b)(1).
119.39(b)	121.27(a)(2), 121.51, 135.13(a)(2) and (b).
119.41(a)	121.77(a), 135.15(a).
119.41(b)	New language.
119.41(c)	121.77(b), 135.15(b).
119.41(d)	121.77(c), 135.15(d).
119.43(a)	121.75(b), 135.63(a)(2).
119.43(b)	121.75(b), 135.63(a)(2).
119.47(a)	135.27(a).
119.47(b)	121.83, 135.27(b).
119.49(a)	121.5, 121.25(b), 121.45(b), 135.11(b), and new language.
119.49(b)	121.45(b), 135.11(b)(1) and new language.
119.49(c)	135.11(b)(1) and new language.
119.49(d)	121.75, 135.81.
119.51(a)	121.79(a), 135.17(a).
119.51(b)	121.79(b), 135.17(d).
119.51(c)	121.79(c), 135.17(b), and new language.
119.51(d)	121.79(d), 135.17(c) and (d).
119.51(e)	121.79(b), 135.17(c) and (d).
119.53(a)	121.6(a).
119.53(b)	New language.
119.53(c)	121.6(b).
119.53(d)	121.5(c).
119.53(e)	New language.
119.53(f)	New language.
119.55(a)	121.57(a) and (b).
119.55(b)	121.57(a) and (b).
119.55(c)	121.57(a) and (b).
119.55(d)	121.57(a) and (b).

119.59(a)	121.81(a), 135.73, and new language.
119.59(b)	121.73, 121.81(a), 135.63(a), 135.73, and new language.
119.59(c)	121.81(a).
119.59(d)	New language.
119.59(e)	New language.
119.59(f)	New language.
119.61(a)	121.29(a), 121.53(a), (c), and (d), 135.9(a).
119.61(b)	121.29(a), 121.53(c), and new language.
119.61(c)	135.35.
119.63(a)	New language.
119.63(b)	New language.
119.65(a)	121.59(a).
119.65(b)	121.59(b).
119.65(c)	121.59(b).
119.65(d)	121.61 and new language.
119.65(e)	121.59(c).
119.67(a)	121.61(a) and new language.
119.67(b)	121.61(b) and new language.
119.67(c)	121.61(c), 135.39(c) and new language.
119.67(d)	121.61(d) and new language.
119.67(e)	121.61(b), 135.39(d).
119.69(a)	135.37(a).
119.69(b)	121.59(b), 135.37(b).
119.69(c)	121.59(b).
119.69(d)	135.39 and new language.
119.69(e)	121.59, 135.37(c).
119.71(a)	135.39(a)(1) and new language.
119.71(b)	135.39(a)(2) and new language.
119.71(c)	135.39(b)(1) and new language.
119.71(d)	135.39(b)(2) and new language.
119.71(e)	135.39(c) and new language.
119.71(f)	135.39(d) and new language.

Table 4.—Distribution Table for Part 121, Part 135, and SFAR 38–2 Sections Being Replaced by Part 119

	Replaced by
Part 121:	
121.3	119.21(a); 119.31; 119.33.
121.4	119.5(g).
121.5	119.49(a).
121.6(a)	119.53(a).
121.6(b)	119.53(c).
121.7	119.21.
121.9	deleted.
121.13	119.25.
121.21	119.1.
121.23	119.7(b).
121.25(a)	119.37(a), (b), (c), (d), (e), (f), and (g).
121.25(b)	119.49(a).
121.26	119.35 (a) and (b).
121.27(a)(1)	119.5(i).
121.27(a)(2)	119.39 (a) and (b).
121.29(a)	119.61 (a) and (b).
121.41	119.1.
121.43	119.7(b).
121.45(a)	119.37(a), (b), (c), (d), (e), (f), and (g).
121.45(b)	119.49 (a) and (b).

121.49	119.35(h).
121.51	119.39(b).
121.51(a)(1)	119.5(i).
121.51(a)(3)	119.39(a).
121.53(a)	119.61(a).
121.53(c)	119.61 (a) and (b).
121.53(d)	119.61(a).
121.55	deleted.
121.57(a)	119.55(a), (b), (c), (d), and (e).
121.57(b)	119.55(a), (b), (c), (d), and (e).
121.57(c)	119.57(a).
121.59	119.69(e).
121.59(a)	119.65(a).
121.59(b)	119.65 (b) and (c); 119.69 (b) and (c).
121.59(c)	119.65(e).
121.61	119.65(d).
121.61(a)	119.67(a).
121.61(b)	119.67 (b) and (e).
121.61(c)	119.67(c).
121.61(d)	119.67(d).
121.71	119.1.
121.73	119.59(b).
121.75	119.49(d).
121.75(b)	119.43 (a) and (b).
121.77(a)	119.41(a).
121.77(b)	119.41(c).
121.77(c)	119.41(d).
121.79(a)	119.51(a).
121.79(b)	119.51 (b) and (e).
121.79(c)	119.51(c).
121.79(d)	119.51(d).
121.81(a)	119.59(a), (b), and (c).
121.83	119.47(b).
Part 135:	
135.5	119.31; 119.33(a), (b), and (c).
135.7	119.5(g).
135.9(a)	119.61(a).
135.11(a)	119.35 (a) and (b).
135.11(b)	119.49(a).
135.11(b)(1)	119.37(a), (b), (c), (d), (e), (f), and (g); 119.39(a); 119.49 (b) and (c).
135.13(a)	119.33(a), (b), and (c).
135.13(a)(2)	119.39(b).
135.13(a)(3)	119.5(i).
135.13(b)	119.39(b).
135.15(a)	119.41(a).
135.15(b)	119.41(b).
135.15(d)	119.41(d).
135.17(a)	119.51(a).
135.17(b)	119.51(c).
135.17(c)	119.51 (d) and (e).
135.17(d)	119.51(b), (d), and (e).
135.19	119.58.
135.27(a)	119.47(a).
135.27(b)	119.47(b).
135.29	119.9(a).
135.31	119.5.
135.33	119.5(j).
135.35	119.61(c).
135.37(a)	119.69(a).
135.37(b)	119.69(b).

135.39(b)(2)	119.71(d).
135.39(c)	119.67(c); 199.71(e).
135.39(d)	119.67(e); 119.71(f).
135.63(a)	119.59(b).
135.63(a)(2)	119.43 (a) and (b).
135.73	119.59 (a) and (b).
135.81	119.49(d).
SFAR 38-2:	
Section 1(a)	119.1(b).
Section 1(a)(3)	119.5 (d) and (e); 119.5(h).
Section 1(b)	119.5(f).
Section 1(c)	119.5(g); 119.31; 119.33 (a), (b), and (c).
Section 2(a)	119.5(a); 119.31; 119.33 (a), (b), and (c).
Section 2(b)	119.5(b); 119.31; 119.33 (a), (b), and (c).
Section 2(c)	129.1.
Section 3	119.7(a); 119.33 (a), (b), and (c).
Section 4(a)	119.21(a).
Section 4(b)	119.21(b).
Section 4(c)	119.25 (a) and (b).
Section 4(d)	119.25 (a) and (b).
Section 5(a)	119.23(a).
Section 5(b)	119.23(b).
Section 5(c)	119.25 (a) and (b).
Section 5(d)	119.25 (a) and (b).
Section 6	119.3.

VII. Discussion of Comments Related to Costs and Benefits

This section of the preamble discusses those costs and benefits related comments submitted to the docket for the NPRM. The comments are presented by topic within their respective areas of concern.

1. Operations

Flight Time Limitations. A commuter operator from Alaska voiced its concerns about the potential high cost (\$502,000) of compliance associated with the proposed requirement for flight time limitations. According to this operator, compliance with the proposed rule would require hiring an estimated 15 to 75 percent more pilots, depending on the location of its operations in Alaska. Also, there would also be additional costs incurred for training.

FAA Response: The FAA is holding in abeyance a decision concerning flight time limitations because of a new proposal that, if adopted, would overhaul all of the flight and duty rules.

Dispatchers. There were a number of comments submitted on the establishment of a dispatcher system. However, none of the comments were directly related to costs. Among those comments related to costs, the primary concern pertained to the idea that there would be significant costs incurred by operators in remote areas (i.e., most of Alaska) or those operators with a small number of airplanes (fewer than five).

FAA Response: There are four points to make in reference to the comments. First, the commenters failed to provide any specific cost information to substantiate their claims of incurring significantly high compliance costs for establishing a dispatch system. Second, it is the FAA's position that nearly all part 135 commuters already have the basic communication equipment needed for a dispatch system because they already have flight locators and flight followers conducting some degree of operational control. Third, even in remote areas carriers have access to contracted communications systems. Fourth, in regard to the personnel costs associated with the dispatch system, these operators are expected to upgrade most of their existing flight locators and flight followers to be dispatchers, at an hourly wage increase of \$1.60 (or \$4,193 annually). Some dispatchers will be hired outside of the company at an annual wage of \$24,000. This position is based on information obtained from the Aircraft Dispatchers Federation

qualifications. These requirements are contained in a separate rulemaking action that pertains to operators under parts 121 and 135.

Cockpit Protective Breathing Equipment (PBE). One airplane manufacturer questions the need for fire-fighting PBE on the flight deck of commuter airplanes with 10 to 19 passenger seats. The commenter asserts that it would cost an additional \$23,800 dollars (rather than the FAA's cost estimate of \$400 per PBE unit) to equip each one of its 10-to-19-seat airplanes with such PBE on the flight deck. This cost estimate does not include a one-time \$52,000 for development costs. According to the commenter, its airplanes are already equipped with fixed smoke-and-flame protection PBE at each of the two pilot stations. Thus, the only potential cost would be for a fire-fighting PBE on the flight deck.

FAA Response: The FAA has decided to drop the proposed requirement for fire-fighting PBE on the flight deck of affected airplanes with 10 to 19 seats.

Costs of Compliance—All Items. According to one commenter, the FAA's analysis grossly underestimated costs. The cost of the proposed rule should be \$1.6 billion instead of the FAA's estimate of \$275 million.

FAA Response: The FAA disagrees with the commenter. The FAA contacted the commenter to acquire information on the methodology and basic assumptions or rationale used to derive the cost estimate. With regards to the methodology, the commenter indicated that he used his own judgment and information provided by other commenters. None of his analysis was supported empirically by outside sources or seemed to be more credible than that used by the FAA. As to the basic assumptions, the commenter said there was no documentation that detailed the methodology used to derive his cost estimate of \$1.6 billion. Therefore, since the commenter was unable to substantiate the cost estimate, the FAA will retain its cost estimate and all associated methodology.

2. Cabin Safety

First Aid and Medical Kits. Several commenters provided cost estimates ranging from \$1,500 to \$2,000 per airplane for the first aid and medical kit requirement, but these cost estimates were submitted without any detailed documentation. An additional commenter, who was contacted, agrees with the cost per first aid kit, but argues that the turnover rate should be 100% a year due to pilfering.

FAA Response: The cost estimates provided by the commenters are higher than the FAA's original estimates. The FAA based the equipment costs on off-the-shelf prices that would be available to all operators. The FAA contacted one commenter that estimates the cost of \$1,500 per airplane for a first aid kit. The commenter's cost estimate includes up front costs such as the engineering designs, administrative paperwork, cost of tooling, as well as the cost of equipment and materials. The FAA assumes that the first aid kits, as well as medical kits, can be secured with Velcro tape and would be secure enough to meet the 18-G requirement. As to design and administrative costs involved with securing first aid and medical kits, the FAA is using the up-front costs of \$1,500 submitted by the commenters. With regards to pilferage, none of the large airlines complain about first aid kits being stolen, and the FAA believes that if any kits are stolen, air carriers would take positive steps to stop such activity.

Locking Cockpit Door and Key. Several commenters are concerned that some locking cockpit doors would have to be retrofitted to work with a key, but cost estimates are not provided.

FAA Response: The FAA acknowledges that the commenters correctly state that keyless locks on affected lockable cockpit doors would have to be retrofitted to work with keys. Based on information from FAA technical personnel, the FAA is assuming that all of the 20-to-30-seat airplanes would have their locks or doors retrofitted, at a total cost of \$182 per retrofit (\$100 equipment + \$82 labor).

Flotation Cushions and Life Vests. One commenter opposes the requirement because of the equipment cost and weight penalty. This commenter states that the seat cushions in the METRO airplane would not serve as effective flotation devices. In addition, this commenter provides a cost estimate for acquiring and retrofitting individual flotation devices for METRO airplanes.

for up-front administrative and engineering costs to comply with Type Data Certificates was submitted by the commenter. The FAA verified this cost-estimate and has incorporated it into the cost of the final rule. However, the FAA contends that there would be no major retrofit costs because the halon fire extinguishers would replace existing fire extinguishers with the same size canister. The FAA's equipment costs were based on off-the-shelf prices for halon which would be available to all operators.

Carry-on Baggage. A commenter from Alaska believes that the FAA's cost estimate for the carry-on baggage screening program implementation is too low. This commenter reasons that the wage rates and paperwork burden would be higher for the Alaska air carriers. In addition, the commenter strongly objects to applying the scanning program at locations that do not have terminal facilities. This commenter believes that each operator will need to develop a measurement device to check each item of carry-on baggage which will result in delays. All of this will cost \$156,000 per year for each Alaskan commuter air carrier; there is no detailed explanation of what this entails. Another commenter, who was contacted, believes that for crewmembers to enforce the carry-on baggage program will delay each flight one minute; this flight delay will need to be costed out.

FAA Response: The FAA disagrees with these commenters. The FAA is unable to evaluate the Alaska commenter's cost estimate without a detailed explanation of the cost breakdown. However, it is important to note that the wage rate and the paperwork hours assumed in the NPRM were national averages, so these numbers could be higher in some parts of the country, like Alaska, and lower in others. In addition, no carrier would be required to have a measuring device to carry out this program; the baggage screening program is visual in nature, and the requirements and costs involved only refer to preparing baggage screening procedures for the carrier's operations manual and an addendum to the Operations Specifications. Finally, the FAA does not believe that there would be delays on any flights due to such a program as crewmembers would be "eye balling" carry-on baggage as passengers are boarding at the same speed they have always boarded.

Flight Attendants at the Gate. A commenter believes that all operators would only use trained, authorized, substitute personnel when coverage is needed. This commenter believes that these trained persons would all be new hires and paid annual salaries of \$12,000. One commenter from Alaska opposes the requirement for flight attendants at the gate. The commenter states that both crewmembers on the 10-to-19 seat airplanes would need to assist in the loading and unloading process, and hence neither could stay on board with passengers. Furthermore, the commenter states that deplaning passengers would not be a viable option because airports in Alaska do not have the proper facilities. Therefore, the commenter states that a trained substitute would have to stay on board the airplane with the passengers 100% of the time. The commenter states that the FAA has also underestimated the training costs and wage costs so that this requirement would cost about \$2.9 million each year for all of the Alaska commuter air carriers to comply.

FAA Response: The FAA disagrees with these commenters. The authorized personnel would need to be trained, reliable, and have a low turnover rate; an annual salary of \$12,000 would not be high enough to attract such people. These airplanes typically fly only during the summer months so passengers can be deplaned. The FAA contends that one of the crewmembers can stay on board the airplane some of the time; loading and unloading responsibilities can often times be accomplished with one crewmember. The final rule has been changed to allow a crewmember to stay on or in close proximity to the airplane to comply with this requirement. The FAA does not believe it is likely that air carriers in Alaska would have trained substitute personnel waiting at each intermediate stop. Accordingly, the FAA believes that Alaskan air carriers would either deplane passengers or use a crewmember.

Passenger Information. One commenter from Alaska disagrees with the FAA's cost estimate for passenger information cards and believes that it is too low. Alaskan air carriers would need to devise a more comprehensive information system due to the many nationalities and native languages in Alaska and this would entail great expense. Some air carriers would also have to translate into Japanese, Korean, and Russian for tourists from the Pacific Rim nations. The commenter also thought that the FAA's assumption of a three year life expectancy for information cards was too high. Based on experience, the commenter states that information cards last less than a year due to wear and theft. The commenter

Performance Criteria. Of seven comments received, only one manufacturer provided cost information. This manufacturer reports that, for their part 23 commuter category certificated airplanes, there would be no compliance costs. However, for their SFAR 41C certificated airplanes, developing the data needed to comply with the part 121 requirements for obstacle clearance and for accelerate-stop would be \$3,000 per airplane for obstacle clearance and \$2,500 per airplane for accelerate stop. For their pre-SFAR 41C airplanes, it would be \$63,000 per airplane to develop performance data for obstacle clearance and \$145,000 per airplane to develop anti-skid data, to purchase and install anti-skid systems, and to incur the 35 lb. weight penalty for accelerate-stop.

FAA Response: In the Notice, the FAA stated that all part 135 scheduled airplanes would be able to meet these performance criteria and that the only cost would be a \$5,000 per type certificate to provide the data and obtain FAA approval for inclusion into the airplane flight manual. After additional review, however, the FAA realizes that SFAR 41 and predecessor category airplanes will be unable to meet all of the part 121 performance criteria without having to offload so many passengers or cargo as to become unprofitable to operate in scheduled passenger service. If operators substitute airplanes configured with 9 or fewer passenger seats for these airplanes, there could be a substantial economic loss and potential safety reduction. Thus, the FAA will allow the operators of these airplanes to have 15 years to meet the part 121 performance requirements. This will allow operators sufficient time to plan for the replacement of these airplanes without incurring an enormous economic loss. It also will allow manufacturers time to develop better substitutes for these airplanes.

Engine-Out-En-Route-Net-Flight Data. There were three commenters on this issue. One manufacturer commenter reports a one-time cost of \$24,774 to create the required one-engine-inoperative-en-route-net-flight-path data which do not exist for any 10-to-19-seat airplanes. Another commenter reports that these flight data are not included in the FAA approved airplane flight manual.

FAA Response: The FAA concurs with these commenters and has adopted the commenter's cost estimate.

Cargo Compartment Smoke Detector and Fire Extinguishing Systems and Cargo Compartment Liners. Two commenters report a per-airplane cost of \$15,230 to \$15,580 to install smoke detectors and fire extinguishers in the cargo compartments of newly-manufactured 10-to-19-seat airplanes. The commenter also reports a per-airplane-retrofitting cost of \$17,420; a one-time cost of \$85,400 for engineering, designing, testing, and paperwork for FAA approval; and 32 lbs. of added weight to each airplane. The commenter also reports a per-airplane cost for cargo and baggage compartment liners of \$13,000 for a retrofit; \$10,420 for a newly-manufactured airplane; a \$463,950 cost for a one-time engineering, designing, testing, and paperwork to obtain FAA approval cost; and 9 lbs. of additional weight. Another commenter reports a per airplane cost of \$26,400 and a weight of 15 lbs. This commenter also notes that the NPRM did not propose any retrofitting.

FAA Response: The FAA disagrees with the commenter. The FAA proposal would only apply to newly-manufactured airplanes beginning four years after the effective date. Thus, there would be no retrofit costs. (After additional analysis, the FAA has decided that this topic needs to be specifically addressed in a separate rulemaking. Thus, there would be no compliance costs for this in the commuter rule.)

Landing Gear Aural Warning. Two manufacturers and one operator report that all of their 10-to-19-seat airplanes have aural landing gear warnings. Two of these commenters report no compliance cost. The other commenter reports a one-time manufacturer's cost of \$2,620 to obtain FAA approval of the flight-manual changes.

FAA Response: The FAA disagrees with the commenter who reported a one-time cost because the presence of the aural warning device in existing airplanes means that this equipment was already included and approved in the airplane flight manual. As the FAA believes that all affected airplanes already employ an aural warning system, there are no compliance costs.

Take-Off Warning System. One manufacturer reports that the per airplane cost to install take-off warning devices would be \$24,920 on a newly-manufactured airplane; \$26,500 for a retrofit; and \$150,260 for a one-time engineering, development, testing, and FAA-approval cost. Also, these devices would weigh 5 lbs. Another commenter reports that it would cost \$12,600 per airplane to install a 2 lb. take-off warning device on a newly manufactured airplane. One commenter reports that it would cost \$11,350 per airplane to install a take-off warning device on a newly manufactured airplane.

FAA Response: The FAA estimates that the per airplane cost for a newly manufactured airplane would be \$16,000 for engineering, developing, testing, and installing, plus an annual \$1,600 inspection, maintenance, and repair cost. The FAA also did not estimate any additional weight for this device. However, after further technical review, the FAA concludes that none of these airplane models (except the Beech 99) would need a takeoff warning system because a takeoff with a device in the most adverse position does not create a hazardous condition. For the Beech 99, that problem was resolved when the FAA issued an Airworthiness Directive (AD) requiring these airplanes to install a takeoff warning system. Thus, there are no compliance costs associated with this requirement.

Third-Attitude Indicator. Two commenters report that there would be no compliance cost for newly-manufactured airplanes because third attitude indicators are standard equipment. One of these commenters reports that there would be a \$1,500 one-time manufacturer's paperwork cost to obtain FAA approval to changes in the flight manual. The same commenter reports that it would cost \$10,865 to retrofit an airplane. The other commenter reports that the per-airplane-retrofit cost would be between \$40,600 for a Beech 1900C and \$48,800 for a Beech 99, and that a third-attitude indicator would weigh 15 lbs. An airplane operator reports that it would cost \$40,000 per airplane to retrofit its Beech 1900Cs. Another airplane operator reports that it would cost \$17,000 per airplane to retrofit its DeHavilland Twin Otters. Finally, a commenter reports that it would cost \$53,170 per airplane to retrofit airplanes. In addition to the reported costs, the commenter states that there was insufficient time for operators to retrofit these airplanes within the one-year period proposed by the NPRM.

FAA Response: The FAA estimates that the per airplane cost would be \$16,000 for a retrofit and \$8,000 for a newly-manufactured airplane. The annual maintenance, inspection, and repair costs would be 10 percent of the retrofitting costs. The third-attitude indicator and wiring would weigh 5 lbs. Based on the manufacturer information, this device has been installed on all turbo-jet and commuter category airplanes.

The FAA contends that its cost estimates in the NPRM are valid. However, the FAA accepts the comment that the additional weight would be 15 lbs. After additional analysis, and in light of the potential high-costs of this proposal, the FAA believes that this requirement should be handled consistently with the principle espoused in the performance requirements. On that basis, the final rule will have a 15-year retrofit compliance period for affected 10-19 seat airplanes and predecessor category.

Lavatory Fire Protection. Concerning 10-to-19 seat airplanes, two manufacturer commenters state that very few of their airplanes had lavatories. For those few that do, one manufacturer reports that installing a lavatory smoke detector and a built-in automatic fire extinguisher in each lavatory-waste receptacle would cost \$59,200 per retrofit, \$8,800 for a newly manufactured airplane, and would weigh 10 lbs. The other commenter reports it would cost \$8,350 for a retrofit, \$7,800 for a newly-manufactured airplane, involve a one-time engineering cost of \$49,000, and would increase each airplane's weight by 16 lbs. Another commenter reports that a retrofit would cost \$725.

Concerning 20-to-30-seat airplanes, two manufacturer commenters report that it would cost \$4,000 to retrofit their airplane lavatories. One of these commenters also states that only one half of the newly manufactured airplanes with lavatories have these devices. Two airlines and one association report that it would cost \$2,500 to retrofit their airplane lavatories. One of the airlines reports that these devices would weigh 20 lbs.

the FAA's estimate is based on the operator electing the second option allowed in the proposed rule—an aural warning device that could be heard by the flight attendant. That option is clearly the cost-effective option for 20-to-30-seat airplanes that are required to have a flight attendant.

These provisions are largely unimportant for the 10-to-19-seat airplanes because very few have a lavatory. In fact, one manufacturer reported that none of their airplanes operating in the U.S. has one. The FAA believes that the reported costs for these individual airplanes are so large because any costs to engineer, design, and test would be distributed over so few airplanes. However, for those few 10-to-19-seat airplanes that do have a lavatory, the FAA changed this rule to allow an aural warning system that can be heard by the flight crew. On that basis, the FAA determined that it would cost about \$175 to retrofit or to install in a newly manufactured airplane a 5 lb. aural smoke detector that requires \$50 a year in maintenance and inspection and \$15 a year for replacement batteries. The FAA also determined that it would cost \$300 to retrofit a 5 lb. receptacle automatic fire extinguisher that requires \$75 a year in maintenance and inspection and \$50 a year for recharging. These costs are \$50 a year more than the costs estimated in the NPRM.

The FAA also estimates that half of the 272 existing 20-to-30 seat airplanes certificated before 1991 did not have these devices whereas 90 percent of the newly-manufactured airplanes have them. The FAA accepts the commenter's statement that only half of these newly-manufactured airplanes have these devices.

Emergency Exit Marking. One manufacturer reports that installing an emergency exit marking light would cost \$11,050 for a retrofit, \$9,100 for a newly manufactured airplane, and would involve a one-time manufacturing cost of \$87,280 to engineer, design, test, and obtain FAA approval for this device.

FAA Response: The cost of this provision was a part of the FAA's estimated emergency lighting cost. After additional analysis, the FAA believes that given the passenger's close proximity to emergency exits and the high cost of complying with the lighting requirements, affected airplanes will not be required to comply with certain lighting provisions in 121.310.

Floor Proximity Lighting. One manufacturer commenter reports that installing emergency floor proximity lighting would cost between \$27,600 and \$36,000 for a retrofit, \$20,800 for a newly manufactured airplane, and the installed lighting would weigh 12 lbs. A second manufacturer commenter reports that it would cost \$19,000 for a retrofit; \$15,000 for a newly manufactured airplane; there would be a one-time engineering, developing, testing, and obtaining FAA approval cost of \$52,650, and the installed lighting would weigh 10 lbs. This commenter also proposes an alternative interior lighting of the exit and exterior emergency exit lighting as a substitute for the full-scale floor proximity and exterior emergency exit lighting in the NPRM. This alternative lighting system is required for their airplanes in Great Britain. But this commenter did not report the cost of their proposed alternative. A third manufacturer commenter reports that it would cost \$8,000 for a retrofit. One air carrier commenter reports that it would cost about \$17,700 to retrofit its DeHavilland Twin Otters. Another air carrier commenter reports that it would cost \$26,800 to retrofit its Beech 1900Cs and \$22,800 to retrofit its Jetstream 31s and Beech 1900Ds. One association reports that it would cost between \$20,000 and \$50,000 for a retrofit. A second association reports it would cost \$11,000 for a retrofit. A third association reports it would cost \$19,000 for a retrofit. Finally, an aviation consultant group reports it would cost \$8,000 for a retrofit.

FAA Response: The FAA estimates that the cost to comply with the emergency lighting requirements in 121.310 would be \$2,500 to retrofit existing airplanes and \$2,000 to install in newly-manufactured airplanes. After additional analysis, the FAA agrees with these commenters that the earlier FAA costs severely underestimated the retrofitting and new installation costs. As a result, the FAA determines that 10-to-19-seat airplanes would not be required to meet these lighting requirements in 121.310.

Emergency Exit Exterior Lighting. One manufacturer commenter reports that the per airplane cost would be \$13,400 to install a 15 lb. emergency exit exterior lighting system on a newly manufactured airplane and \$17,950 for a retrofit. In addition, they report a one-time engineering, design, testing, and paperwork for FAA approval cost of \$64,525. However, as noted in the previous section, their suggested

the earlier FAA costs severely underestimated the retrofitting and new installation costs. As a result, the FAA determines that 10-to-19-seat airplanes would not be required to meet these lighting requirements in 121.310.

Exterior Emergency Exit Marking. One manufacturer commenter reports that it would cost between \$350 and \$650 for an airplane operator to install these markings on the exterior of the emergency exits. One association commenter reports that it would cost \$74 to install these markings. Neither commenter discusses the number of airplanes that would need to have these markings installed.

FAA Response: The FAA estimated that about 10 percent of the 10-to-19-seat airplanes would need to comply with this requirement at a cost of \$100 per airplane. However, the FAA notes that this section is identical to § 135.178(g). As a result, there are no compliance costs.

Pilot Shoulder Harnesses. One manufacturer commenter reports that even though all of their airplanes are now manufactured with the single point pilot shoulder harness, they would still incur a \$22,500 one-time cost—presumably to obtain FAA approval for inclusion in the flight manual. One association commenter reports that it would cost \$440 to retrofit a single point shoulder harness.

FAA Response: The FAA did not estimate any cost for this provision because the proposal did not require retrofitting and the FAA was informed by industry that the single point inertial harness for pilots is standard equipment on all currently-manufactured airplanes. Thus, the FAA determines that there is no compliance cost.

The FAA disagrees with the commenter who reported a one-time manufacturer's cost because this equipment is already in airplanes and, hence, approved in the airplane flight manual.

Interior Panel Heat and Smoke Release Standards. There were two commenters on this issue. One manufacturer commenter reports that the per airplane cost for requiring the more stringent fireproofing material for cabin interiors would be \$77,550 for a retrofit, \$67,500 for a new installation, and there would be a one-time engineering, designing, testing, retooling, and obtaining FAA approval cost of \$627,910. Another manufacturer commenter reports that it would cost \$90,000 per airplane to install in a newly manufactured airplane and also notes that the Notice did not propose a retrofit. It should be noted that the commenter's methodology averages any one-time engineering and development costs into the expected number of future sales of the Beech 1900D.

FAA Response: The FAA disagrees with the commenters. Manufacturers would only have to comply with the existing type-certification standard. Therefore, there would be no compliance cost.

Passenger Seat Cushion Flammability. There were eight commenters on this issue. One manufacturer commenter reports that the per airplane cost would be \$11,250 to retrofit one of its airplanes with fire-blocked-seat cushions; \$10,250 per airplane to install in a newly manufactured airplane; there would be a one-time engineering, design, testing, and FAA-approval costs of \$85,415; and it would add 20 lbs. A second manufacturer commenter reports that the per airplane cost would be between \$20,000 and \$22,600 for a retrofit; \$3,400 in newly manufactured airplanes; and would weigh 38 lbs. One air carrier reports that the per airplane cost would be \$12,600 to retrofit its Beech 1900Cs and \$4,000 to retrofit its Beech 1900Ds and Jetstream 31s. Another air carrier reports that the per airplane cost would be \$35,000 to retrofit its DeHavilland Twin Otters. Another air carrier reports that the per airplane cost would be \$20,000 to retrofit its fleet. Three associations report that the per airplane retrofitting costs would range from \$20,000, \$42,950, and \$50,000.

FAA Response: The FAA estimated that the per-airplane-incremental cost would be \$20,000 to retrofit fire-blocked-seat cushions, \$5,000 to install these seat cushions on newly-manufactured airplanes, and \$10,000 to replace these seat cushions on airplanes that have fire-blocked-seat cushions. An additional cost would be the 38 lbs. of weight these seats add to the airplane. The FAA acknowledges the fact that different airplanes would have different retrofitting and new installation costs.

\$1,600 for a newly manufactured airplane. One association reports that it would cost \$11,000 per airplane.

FAA Response: The FAA had not estimated any compliance costs for section 121.317(b) because it was believed that commuter airplanes had these signs. However, after additional analysis, the FAA determines that a placard and a pre-flight briefing provide an equivalent level of safety to a lighted sign. As these are industry practices, there is no compliance cost.

Wing Ice Light. There were two comments on this issue. One manufacturer reports that there would be no compliance costs for any of their airplanes. One association reports that it would cost \$11,000 to install wing ice lights on its members' airplanes.

FAA Response: In the Notice, the FAA did not estimate any costs for this provision because the provision states "No person may operate an airplane in icing conditions at night unless means are provided for illuminating or otherwise determining the formation of ice on the parts of the wings that are critical from the standpoint of ice accumulation." The FAA holds that all of the airplanes have either the wing ice lights or an acceptable alternative method for determining the icing accumulation on the wings. As a result, there is no compliance cost.

Pitot Heat Indication. There were five commenters on this issue. One manufacturer reports that the per-airplane cost would be \$9,250 to retrofit pitot heat indication tubes, \$10,600 to install on a newly-manufactured airplane, there would be a one-time cost to apply, engineer, design, and test of \$31,670; and it would weigh 4 lbs. Another manufacturer commenter reports that it would cost between \$3,000 and \$5,700 per airplane to retrofit its models no longer in production and it would weigh 1 lb. This commenter also reports that all of its currently manufactured airplanes have pitot heat indication systems. One air carrier reports it would cost \$1,650 to retrofit its DeHavilland Twin Otters with pitot heat indication tubes. One association reports that it would cost its members \$11,000 per airplane for a retrofit while another association reports that it would cost its members between \$1,500 and \$25,000 per airplane for a retrofit.

FAA Response: Based on information contained in the Draft Regulatory Evaluation to the FAR/JAR Harmonization, the FAA had estimated that the per airplane costs would be \$500 for a retrofit and \$250 for a newly-manufactured airplane. After review of these comments, the FAA has revised these cost estimates to \$4,000 for a retrofit, \$2,000 for installation on a newly manufactured airplane, and an additional 5 lbs. of weight to the airplane.

Power Distribution System. One commenter reports that § 121.313(c) requires a power supply and distribution system that meets the requirements of six sections of part 25. They state that this would require a major redesign of their airplanes' electrical power distribution system. They report a per airplane cost of \$15,605 for a retrofit, \$12,660 for a newly manufactured airplane, and a one-time engineering, design, testing, and paperwork for FAA approval of \$156,256.

FAA Response: The FAA disagrees with this commenter. They did not notice that the further text in part 121.313(c) reads ". . . or that is able to produce and distribute the load for the required instruments and equipment, . . ." The requirement allows the use of a power supply and distribution system that has been shown to perform its functions. Thus, compliance can be established by means other than part 25. As a result, there are no compliance costs.

Out-of-Service Time to Install Airplane Equipment. Four commenters note that the FAA failed to include the cost for the additional out-of-service time that will be needed to install all the equipment required to comply with the proposal. Although no exact costs were provided, these commenters assert that this time out of service would result in a substantial revenue loss.

FAA Response: Even though the FAA attempted to design the proposed rule to minimize out-of-service time, the agency agrees with these commenters that there would be some out-of-service time for some of the affected airplanes. However, as a result of the changes from the NPRM to the final rule, the FAA contends that all of the required equipment by the final rule can be installed during regularly scheduled maintenance and there will be no additional out-of-service time.

FAA Response: With few exceptions, the FAA agrees with the commenters. Part 121 requires 24 hours off during any 7 consecutive days; part 135 makes no such provision. In its original assessment of maintenance and preventive maintenance personnel duty time limitations, the FAA assumed the issue to be non-controversial; the existence of union work rules, Department of Labor regulations and the generally accepted notion of a "day of rest" were believed to be sufficient to accomplish the same result. As a consequence, the FAA did not assess any costs associated with the burden of scheduling and providing a day of rest for part 135 mechanics as is required under part 121 where operators must ensure adequate rest for their mechanics.

The FAA maintains that mechanics, similar to pilots and flight attendants, must receive adequate rest in order to perform their duties properly and that the minimum standard required under part 121 would ensure that the opportunity for rest is provided. The FAA, however, concurs with the AACA that the extending of duty time limitations to the Alaskan operators of mixed fleets utilizing maintenance personnel under both parts 121 and 135 would be an additional cost burden. Therefore, based on cost information provided by the AACA, the FAA has adjusted its original maintenance cost estimates accordingly. The adjustment is two-fold: 1) the full cost burden inclusive of potential added labor costs were estimated for Alaskan 10-19 seat category air carriers; and 2) the administrative maintenance personnel scheduling costs without the labor cost factor were estimated for the remainder of the 10-to-19-seat non-Alaskan commuter fleet as well as the 20-to-30-seat commuter fleet.

Maintenance Recordkeeping Requirements (Recording). The AACA also criticizes the FAA's estimate of a one-time cost for compliance with the commuter rule's maintenance provisions. The AACA maintains that the one-time cost is underestimated and that there would be on-going maintenance recordkeeping costs.

FAA Response: The FAA concurs and has adjusted its original maintenance cost estimates accordingly. In this instance, however, the FAA has apportioned the added required maintenance recordkeeping costs between 10-to-19-seat and 20-to-30-seat airplanes for the total domestic commuter industry.

Maintenance Recordkeeping Requirements (Records Transfer). One commenter objects to the proposed change requiring engine and propeller total time in service to be added to the list of required recorded items. Typically, under part 121, only the total hours in service of an airplane's airframe is transferred information on older airplanes because operators have not been required to retain engine and propeller time in service data. According to the commenter, this change would necessitate operators of older 121 airplanes to undergo an extensive search of maintenance records to determine the historical times on the engine and propeller if such data is available at all.

FAA Response: The FAA concurs with the commenter. The adoption of part 135 wording imposes the more comprehensive part 135 maintenance recording requirements on part 121 operators and this might require an extensive search of maintenance records with some additional cost to an operator of older part 121 airplanes. The FAA, however, believes that any additional cost as a result of such a search would be minimal and has been taken into account with the cost adjustment provided under the maintenance recordkeeping requirements for recording addressed in an earlier comment. The FAA believes that the additional cost would be minimal because only seven existing part 121 operators of older propeller-driven airplanes would be affected by the new requirement. Typically, most part 135 operators utilizing propeller-driven airplanes already retain engine- and propeller-total-time-in-service data and most part 121 operators utilize jet-driven airplanes.

Continuous Airworthiness Maintenance Program (CAMP). One commenter estimates that the cost associated with the CAMP was considerably greater (\$1.6 million) relative to the FAA's estimate to develop or revise and upgrade the CAMP (\$105,000) as a result of the commuter rule.

FAA Response: The FAA does not concur with the commenter's estimate. The FAA maintains that nearly all operators of airplanes with 10-to-19- or 20-to-30-seat configurations regardless of whether operating under part 121 or part 135, are either conducting their scheduled maintenance under an approved CAMP

3. Part 119

Single-Engine Airplanes. Several commenters state that the NPRM cost estimates for not allowing a passenger to sit in the co-pilot seat on a single-engine Otter are understated. One commenter states that the data the FAA used was based on national averages while all of the airplanes in question are located in Alaska. The commenters also state that the load factors and operating costs in Alaska are much higher than the rest of the country.

FAA Response: The FAA agrees with the commenters and will not prohibit qualified (as prescribed by § 135.113) single-engine airplanes, namely single-engine Otters, from carrying a revenue passenger in the copilot seat.

Proving Tests. Several commenters suggest that for operators who are switching from part 135 to part 121, the FAA should allow proving tests on revenue flights. Other commenters contend that since the airplanes they are using and the routes they are flying are not changing, the FAA should not require a proving test. Still other commenters state that the FAA's estimate of \$437 hourly airplane operating costs was too low. (This rate includes crew, maintenance, and fuel costs.) The commenters' estimates range from \$750 to \$1,050 per hour versus the FAA's average estimate of \$483 per hour for 20-to-30-seat airplanes and \$463 per hour for 10-to-19-seat airplanes. Finally, some part 135 operators commented that they already meet many of the part 121 requirements and should not have to have a proving test.

FAA Response: For most part 135 operators, the biggest affect the NPRM would have on them would be the establishment of a dispatch system. Thus, for some operators, the FAA could devise tests that would entail only limited in-flight proving tests. This could be done almost entirely from the operator's dispatch center. For the initial upgrade to part 121, the FAA will not require compliance with the initial airplane proving tests requirements of section 121.163(a) for airplanes already used by the affected commuters in part 135 operations.

As for the hourly airplane operating cost, some of the commenters provided hourly-charter rates. However, the cost of the rule would not necessitate that operators give up a revenue or charter flight to complete the proving test. Therefore, the cost of the rule would be only the direct operating cost of the airplane based on a direct operating cost rate and not the charter rate. The FAA's estimate was consistent with estimates provided by several airplane manufacturers.

Management Personnel. One commenter says that a number of their management personnel would not meet the new criteria and that they would have to hire all new personnel or a consultant. Other commenters argue that existing personnel should be "grandfathered in" under the final rule. Another commenter says that the requirement for part 121 operators that a director of maintenance have five years of experience within the past five years excludes people who may have not worked for an extended period during a job search.

FAA Response: The FAA contends that most currently employed directors meet the new standards. However, for those directors who do not, section 119.67(e) allows for operators to request deviation for the continued employment of those directors. The FAA anticipates that operators whose directors do not meet the new requirements would request deviation.

In addition, the FAA agrees that the five years experience within five years places an unnecessary burden on those directors who may have extended periods of unemployment within the five year period prior to being hired. Thus, the FAA is changing the requirement to three years of experience in the past six years.

Definition of Commuter Air Carrier. Several commenters disagree with the FAA's proposal to remove the frequency of operation from the definition of a "commuter operations". The existing requirement defines a commuter as one conducting five or more scheduled round-trips per week. This allows on-demand operators to conduct up to four scheduled operations per week. The commenters provide only general comments that the new definition would impose costs.

a corresponding requirement in the proposed rule has been declining over the past several years thereby making much of the rule unnecessary. Finally, commenters note that most of the accidents involved pilot error, which is not being addressed by the NPRM.

FAA Response: The FAA agrees that most of the historic accidents involved pilot error. However, many of the pilot error accidents were the result of the pilot's improper response to an emergency situation. An example of this would be an accident where an airplane experiences some mechanical problem or adverse weather and the pilot fails to follow the appropriate corrective procedures to prevent the accident. Even if the accident could not have been prevented, the pilot may have reacted in such a way that the damage or casualties were not mitigated to the extent that they could have been.

The FAA used a general or broad-based accident rate because the scope of the NPRM was broad, encompassing a wide range of safety issues from certification, operations, cabin safety, maintenance, etc. Similarly, the types of accidents the NPRM would prevent are also broad, based on a wide range of probable causes of historic accidents. For most of the accidents, the FAA could not determine if any one requirement of the NPRM alone could have prevented or mitigated the accident. This made it very difficult to divide the various probable causes of the accidents to the various requirements that could have prevented them. Thus, for the NPRM, the FAA contends that a general broad based accident rate is more appropriate.

The FAA agrees that the historic accident rate for part 135 operators has declined. However, that rate is still consistently higher than commuter-type operations under part 121. In the NPRM, the FAA acknowledged that in some respects the part 135 accident rate is higher due to some inherent differences in part 135 and part 121 commuter-type operations. In other respects, the part 135 rate is higher because those operators follow a different and less stringent set of safety rules than part 121. The FAA contends that much of the gap in the accident rate could be closed if all commercial passenger-carrying operators adhered to the higher part 121 standards of safety.

7. Other Areas of Interest

Projected Ticket Prices. Several commenters state that the projected ticket price increases of \$1.91 and \$.68, respectively for 10-to-19- and 20-to-30-seat airplanes is far off. Commenters from Alaska presented the strongest disapproval of FAA's projected ticket-price estimates.

FAA Response: The FAA's cost estimates of \$1.91 and \$.68 were not far off because most of the commenters' higher costs claims did not have merit. Except for some commenters from Alaska, the FAA did not receive any direct-cost comments related to these two estimates. Since these two cost estimates were based on the total cost of compliance for the proposed rule, they would only change if there were a change in costs for the commuter rule.

The FAA reviewed all of the cost comments submitted on the proposed rule and rejected the vast majority of them due to the comments' failure to substantiate their claims of higher costs.

In terms of the comments received from Alaskan operators, the FAA agrees that their costs would be higher than \$1.91 and \$.68, respectively. It is important to note that these projected ticket price increases represent averages over the 10-year period. They are based on the cost of compliance for each of the 10 years, summed over the period, and divided by the number of years. Therefore, if particular operators were to incur disproportionate higher costs, they would be expected to pass those costs on, to the extent possible, in the form of higher ticket prices. Ticket price increases would be highest for all impacted operators during the first two to three years and decrease gradually thereafter.

After accepting some of the cost comments and making adjustments for changes in performance and certain equipment requirements, the commuter rule is estimated to cost \$118 million (as opposed to \$275 million in the NPRM). Based on this estimate, the average annual per ticket price increase for each of the two airplane-seat categories, over the next 15 years, will be far less than the original estimates.

number of small entities. No part of the final rule will constitute a barrier to international trade. These analyses, available in the docket, are summarized below.

A. Sections Without Cost Impacts

Those part 121 sections that the FAA has determined will not impose additional costs on part 135 commuter operators are not described in this summary evaluation. Each of those part 121 sections will not impose costs for one of the following reasons: (1) Current practice is identical or very similar to the new requirement; (2) the new requirement represents minor procedural changes; (3) the section determines general applicability and does not specifically impose any costs; or (4) certain requirements of part 135 would be incorporated into part 121 without change. Those part 121 sections without costs are described in the full evaluation under each of the areas for which they apply. While not shown in this summary evaluation, it is important to note that 10 of the sections in the final rule were identified as having negligible costs. These negligible costs, even when combined, will not be significant.

B. Sections With Cost Impact

The rule will impose costs on part 135 operators with 10-to-30-seat airplanes. The FAA estimates the total cost of the rule will be \$117.80 million over the next 15 years in 1994 dollars, with a present value of \$75.19 million (7 percent discount rate). The total potential costs for 10-to-19- and 20-to-30-seat airplanes are presented in the following areas:

	10-19 seats	20-30 seats	Total cost	Present value
Operations	\$48.32	\$24.87	\$73.19	\$46.18
Maintenance	12.93	5.26	18.19	11.93
Cabin Safety	5.99	5.58	11.57	8.20
Part 119	2.73	0.63	3.36	2.30
Certification	10.39	1.10	11.49	6.58
Total	\$80.36	\$37.44	\$117.80	\$75.19

Based on the \$80.36 million figure shown above, the FAA estimates that, on average over the next 15 years, the price of a one-way airline ticket will increase by \$0.62 for affected operators with 10-to-19-seat airplanes. Similarly, based on the \$37.44 million figure, the ticket price will increase by \$0.30 for affected operators with 20-to-30-seat airplanes.

It is important to note that the total cost per airplane in each of the first four years of the rule sheds light on the initial compliance costs. These costs per airplane are as follows:

	10-to-19-seat airplanes	20-to-30-seat airplanes
1996	\$19,400	\$21,900
1997	7,600	6,600
1998	7,000	6,300
1999	7,200	5,900

1. Operations

This section of the regulatory evaluation examines the costs of the changes with regard to operations. Fifteen-year costs for operations requirements will total \$73.19 million (\$46.18 million, present value). The cost items, by section, are provided below.

Section 121.97: Airports Required Data. Each domestic and flag air carrier must show that each route it submits for approval has enough airports that are properly equipped and adequate for the proposed

airport it intends to operate. To achieve this objective, operators typically hire a contractor to perform obstacle-location and height surveys. The contractor uses the airplane's flight-manual-performance data to assess flap settings and runway-end capability for a particular airport for information related to takeoff-run-acceleration distance, runway length, anti-skid, etc.

The typical contractor fee is \$20 per runway. For example, ABC airlines is a commuter operator with 5 types of airplanes that it wishes to operate at airports in 10 cities. Each city has an airport with 10 runways. The operator, however, only intends to use two runways per airport in each of the 10 cities. The cost performing the needed obstacle performance data analyses is \$2,000 (\$20 per runway \times 10 airports \times 2 runways per airport \times 5 airplane types). While this is a simple example of estimating a fictitious operator's potential cost of compliance, it sheds light on the difficulty of deriving such costs reliably. Although reliable information is available on the cost of contractor conducted obstacle-performance-data analyses, the same reliability does not apply to the number of runways or airports commuter operators will use. Potential costs for this requirement cannot be estimated reliably without knowing what airports, runways, and the types of airplanes operators will use. It is for this reason that this section of the evaluation contains no estimate for costs. Despite this situation, the FAA contends that this requirement is an important element in achieving the one-level-of-safety objective.

Section 121.99: Communications Facilities. Currently, this section requires each domestic and flag air carrier to show availability of a two-way air/ground radio communication system at points that will ensure reliable and rapid communications, under normal operating conditions over the entire route (either direct or via approved point-to-point circuits). Each carrier also must show that the system is accessible between each airplane and appropriate dispatch office, and between each airplane and the appropriate ATC unit. In addition, each system must be independent of any other system operated by the United States.

To estimate the potential cost, the FAA contacted several industry sources, including operators and data link service vendors. These sources indicated that the least expensive option for most operators would be a voice data link service from an FAA-approved vender. According to Aeronautical Radio, Inc. (ARINC) and several operators with operations specifications for parts 121 and 135 (scheduled), the needed voice-data-link service consists of a monthly access fee of \$35 per operator and a fee of \$14 per contact. Contact refers to any form of voice communication between the pilot while in flight and the home dispatcher.

If, from a worst case standpoint, none of the current commuters have this access service, the total cost will be the number of affected operators times the monthly access fee of \$35 over the next 15 years. This evaluation estimates that the number of commuter operators will range from 63 in 1996 to 73 in 2010. This will result in a total cost of \$445 million (\$269 million, present value). The contact fee cost can be estimated in a similar manner, though it employs a great deal more of uncertainty because the actual number of contacts each operator will make annually is unknown and usually varies among operators. According to industry sources, there will be a certain percentage of contacts per annual departures for each airplane in an operator's fleet. Based on information contained in the Regional Airlines Association's Annual Report for 1994, each airplane in the U.S. commuter fleet makes an average of 5.68 departures per day or 2,074 annually. The number of airplanes with 10 to 30 seats in the U.S. commuter fleet is projected to range from 950 in 1996 to 1,099 in 2010.

Initially for this evaluation, the FAA assumed at least one contact per departure. Multiplying the 2,074 annual departures times the \$14 contact fee gives the total potential contact cost of \$445 million (\$269 million, present) over the next 15 years. In realistic terms, however, this cost estimate is too high because it does not reflect the actual practice in industry. According to several operators, contacts via ARINC or a similar service would only be made during emergency situations (for example, flight delays, inclement weather, etc.). Within an average radius of 50 nautical miles, contacts can be made directly between the airplane pilot and the home dispatcher, without the aid of an external-communications-voice-data network (e.g., ARINC or a similar service). In flat lands, this communication can be made up to 100 miles, when the dispatcher is located at the hub. In high terrain areas, communication with

In addition to the information above, industry sources contacted indicated that commuter operators with dual or split operations specifications (both parts 121 and 135) already have this capability. These operators (approximately 19) account for over 60 percent of all the airplanes in the U.S. commuter fleet. This scenario will result in estimated costs of \$18.9 million (\$11.5 million, present value) over the next 15 years. This cost estimate also recognizes that the number of contacts will be lower because pilots typically contact ATC for information related primarily to weather and air traffic delays. Therefore, this evaluation assumes only 10 percent of the commuter airplane departures, by operators without dual operations specifications, will engage in contacts via ARINC or similar service.

Section 121.135—Contents of Manual. This section will require an extensive list of manual contents for operators. Unlike part 135, part 121 requires more detailed instructions to flight and ground personnel, including dispatch procedures, airport information, and approach procedures. The manuals of part 121 operators are, on average, three times as voluminous as those of part 135 operators. Thus, compliance with the final rule will result in major rewrites of manuals. Based on cost information received from industry, affected operators will spend an additional \$50,000 on average (\$30,000 to \$70,000) each for new manuals. This cost estimate multiplied times the number of operators over the next 15 years will total approximately \$3.65 million, (\$3.28 million, present value). This cost estimate for manuals takes into account additional preparation and distribution requirements.

Section 121.337—Protective Breathing Equipment (PBE) for the Cockpit. This section will require PBE units for persons operating airplanes under part 121. Part 135 has no PBE requirement. While commuter airplanes are typically smaller than airplanes operating under part 121, the accessibility of PBE in the cockpit will provide smoke-and-fumes protection for pilots. The airplane operator is allowed to use fixed equipment such as oxygen masks and smoke goggles at each pilot station. Depending on the present airplane configuration, this may require substantial modifications.

According to FAA's technical personnel, airplanes with 20-to-30 seats already have fixed PBE units for pilot stations in the cockpit for smoke and fume protection but they are not equipped with a portable PBE unit for fire fighting. In terms of operators with 10-to-19-seat airplanes, the FAA is uncertain as to how many part 135 operators are already equipped with PBE (portable or fixed) in the cockpit. As the result of this uncertainty, this evaluation assumes that part 135 operators with 10-to-19-seat airplanes are not currently equipped with PBE in the cockpit. This evaluation also assumes that operators with 20-to-30-seat airplanes do not have portable PBE in the cockpit for firefighting. The installation of fixed PBE in some commuter airplanes could be prohibitively expensive because of complex breathing gas supply requirements. Since portable PBE is much cheaper than fixed PBE, operators with 10-to-19-seat commuter airplanes are assumed to acquire and install portable smoke and fume PBE in the cockpit if not equipped with an oxygen system. Each portable PBE is estimated to cost \$400 per unit. In 1996 and subsequent years, operators with 10-to-19-seat airplanes are assumed to install two smoke-and-fumes portable PBE units in the cockpit: one at each of the two pilot stations. Over this same period, operators with 20-to-30-seat airplanes are assumed to install one additional fire-fighting-portable PBE unit in the cockpit. In addition to PBE units, costs are also estimated for the weight penalty of each PBE unit. Each of the cost components multiplied by the number of airplanes in existence, over the next 15 years, will result in an estimated cost of \$2.64 million, (\$1.81 million, present value).

Section 121.357—Airborne Weather Radar. This section will require part 135 commuters to equip their airplanes with approved weather radar. Currently, section 135.173 requires that operators equip their airplanes with either thunderstorm detection equipment or approved weather radar. However, section 135.175 requires operators of airplanes with 20 to 30 passenger seats to equip their airplanes with weather radar. An estimated 90 percent of all commuter airplanes with 10-to-19 passenger seats already have approved weather radar equipment. Based on this information, the rule will only affect an estimated 10 percent of those operators of airplanes with 10-to-19 seats (excluding commuter operators in Alaska and Hawaii which are not covered by the rule). Because of their unique flying environments, commuter operators in Hawaii and Alaska are not required under current regulations to be equipped with weather radar equipment. Weather radar costs approximately \$30,000 per airplane, including installation. Each weather

operators primarily employ full-time flight locators. The FAA further assumes that operators conducting both parts 121 and 135 operations currently employ half as many qualified dispatchers as they will need to dispatch all of their flights.

The number of dispatchers was primarily calculated using information provided by Airline Dispatchers Federation (ADF) and industry sources. The ADF estimated that an air carrier with 30 airplanes will need eight or nine dispatchers to staff a 24-hour operation. The FAA used a ratio of eight dispatchers to 30 airplanes of 10 or more passenger seats for each part 135 commuter air carrier. The total number of required dispatchers was computed by multiplying the number of airplanes with 10 or more passenger seats operated by each air carrier by the ratio 8 to 30. However, to take into account that an 8-hour day might not cover all of an air carrier's daily flights, as well as vacation and sick leave, the FAA assumes that each air carrier will need at least two dispatchers. In 1996, 307 dispatchers will be needed to meet the requirements of this rule. In 1997, the number of dispatchers will be 318 and will grow to 353 by 2010.

Unlike in regulatory evaluation for the proposed rule, the cost of compliance for the final rule is based primarily on the median annual salary differential between flight locators and dispatchers. The FAA estimated the median annual salary of a part 135 dispatcher on the hourly wage of \$9.10 reported by the ADF. The FAA computed an annual median salary of \$23,849 for a dispatcher by multiplying the ADF's hourly wage rate estimate of \$9.10 times a fringe benefits factor of 1.26 (or 26 percent) and full-time yearly hours of 2,080 (52 wks. \times 40 hrs.). Similarly, the median annual salary of a flight locator was estimated to be \$19,656 ($\$7.50 \times 1.26 \times 2,080$). The annual median salary differential was estimated to be \$4,193 (\$23,849 less \$19,656).

Based primarily on information received from FAA technical personnel and industry (operators and ADF's comments on the NPRM), about 67 percent of the required flight dispatchers will come from existing part 135 flight locators and approximately 33 percent of the required dispatchers will be hired from outside by operators. Some of these new hires will be supervisors/trainers. According to several commuter operators contacted recently, they will have to hire dispatchers from outside of their company in order for them to meet the proposed dispatcher requirements. The decision to hire dispatchers from the outside is based primarily on: (1) The need for additional supervisory personnel because of the projected number of inexperienced dispatchers to be hired under part 121 and (2) all of their existing personnel (flight locators and to some flight followers) cannot be trained at once without seriously disrupting daily operations. Thus, of all the new dispatchers projected to be hired over the next 15 years, about 67 percent will be from existing personnel (upgraded from flight locators and some flight followers) with the affected commuter operators and 33 percent from the outside (or non-upgraded employees).

Training costs include 40 hours of initial training, 10 hours of recurrent training, and 5 hours of operating familiarization for dispatchers who authorize turbopropeller flights (as required by sections 121.422(c)(1)(ii), 121.427(c)(4)(ii), and 121.463(a)(2)). Air carriers are assumed to incur the cost of dispatchers' salaries during training. In addition to salary costs, the FAA assumes that the air carrier will incur \$1,000 in costs for initial training for each dispatcher and \$500 in costs for recurrent training for each dispatcher. The FAA estimates that each carrier will incur \$1,000 in administrative costs for each dispatcher hired. The FAA recognizes that during the initial and follow-up training for new dispatchers, operators may incur additional costs in the form of reduced operational efficiency, though to what extent is unknown. However, in view of all available information, the FAA has no indication that such costs would be significant.

Total personnel-related costs were calculated by adding the salary, training, administrative costs, and multiplying by the number of new dispatchers required. The FAA estimates that the dispatcher requirement will cost \$42.86 million (\$25.9 million, present value) over the next 15 years. Approximately \$25.66 million (\$15.49 million, present value) will be borne by operators of 10-to-19-seat airplanes, and the remaining \$17.20 million (\$10.38 million, present value) will be borne by operators of 20-to-30-seat airplanes.

Air Line Pilots Association (ALPA), the FAA estimates that only about 0.55 percent of part 135 commuter pilots are currently over the age of 60. The FAA estimates that about 45 pilots will be affected if the requirement takes effect in the year 1999. The FAA also estimates, based on ALPA data, that 0.32 percent of current part 135 pilots would reach age 60 in subsequent years and thus about 27 pilots would need to be replaced each year from 1999 on.

The FAA is unable to quantify the costs to operators or to affected pilots. The nature and magnitude of these costs depend upon the alternatives available to each party, which the FAA has been unable to identify in sufficient detail to estimate costs. The FAA believes that the four-year phase-in of this requirement will help to minimize any potential disruptions the rule may cause and that the resulting cost are not likely to be substantial. The FAA also believes that the age 60 requirement is essential to achieve the "one level of safety" goal established by the Secretary of Transportation and that any cost of this requirement is justified by its benefits.

2. Cabin Safety

This section of the regulatory evaluation examines the costs of the changes with regard to cabin safety. Over the next 15 years, costs for cabin safety items will total \$11.57 million (\$8.20 million, present value). The cost items, by section, are provided below.

Sections 121.133, 121.135, and 121.137—Flight Attendant Manual. These sections will require all flight attendants to have an operations manual. There is no such requirement for flight attendants currently working for part 135 operators. This requirement necessitates preparing such manuals for each flight attendant. Since each flight attendant is required to have a manual, the number of manuals equals the number of flight attendants. The 15-year cost for the preparation, copying, and binding of these manuals is \$61,600 (\$47,200, present value). The costs involve the preparation of the manual contents and the copying and binding of the finished manual. FAA analysis projects 277 20-to-30-seat airplanes in 20 air carriers in 1996, increasing to 556 such airplanes in 39 air carriers by 2010. Each air carrier will employ a flight attendant supervisor (paid at \$24.19 per hour) and a clerical worker (paid at \$11.00 per hour) to spend 40 hours each preparing a manual; hence, it will cost each air carrier about \$1,400 to prepare a manual. The manual is an average of 100 pages long; at \$.10 to copy each page, and \$2 to bind each manual, total copying and binding costs is expected to total \$12 for each manual. Existing air carriers with new airplanes in the future will have to reproduce a new manual for each airplane. All new air carriers with 20-to-30-seat airplanes, which will total 19 by 2010, will also have to prepare and publish flight attendant manuals.

Section 121.285 and 121.589—Carry-On Baggage. These sections will require affected operators to stow carry-on baggage and develop a program to screen carry-on baggage. Screening, in this context, refers to a visual check to ensure that the carry-on baggage is the proper size and could be stored properly on the airplane; it does not refer to security screening. Currently, part 135 airplanes adhere to substantive baggage stowage procedures, but part 121.589 requires that a crewmember verify that all baggage is properly secured before all doors are closed and the airplane leaves the gate. Some air carriers argue that this requirement will increase time at the gate, reduce airplane utilization time, and thus result in lower revenue to air carriers. The FAA contends that there will be no costs for this procedure due to the minimal time necessary to properly secure carry-on baggage and the fact that airplanes experience routine delays anyway while waiting for clearance on the runway. The cost of the rule will involve the preparation of an addendum to the Operations Specifications in which each carrier will outline its procedures for a baggage program.

The 15-year cost for operators of 10-to-30-seat airplanes to prepare a carry-on baggage addendum to the Operations Specifications will be \$20,600 (\$18,500, present value). This cost is divided between 10-to-19-seat airplanes (\$12,300) and 20-to-30-seat airplanes (\$8,300). For each air carrier, this process involves two people—a flight attendant supervisor for 20-to-30-seat airplanes or a crewmember supervisor for 10-to-19-seat airplanes (both paid at \$24.19 per hour) and a clerical person (\$11.00 per hour) to do the paperwork (average of 8 hours each) and to develop the addendum. Each carrier will bear the

on a recent survey, the FAA has ascertained that less than 3 percent of all 10-to-19 seat airplanes (14 airplanes) and no 20-to-30-seat airplanes currently conduct overwater flights. The percentages were projected into the future. Based on this paucity of airplanes certificated for extended overwater flights, the FAA tried to estimate the costs for part 135 operators to conduct ditching evacuation demonstrations for new 10-to-30-seat airplanes using two different methods. In both cases, as will be shown below, the 15-year cost for part 135 operators to conduct ditching evacuation demonstrations for new 10-to-30-seat airplanes will be zero.

The first method involves taking an aggregate approach and examining the entire fleet using the same methodology used in the NPRM. This involves a demonstration which requires crewmembers to perform ditching evacuation drills and safety procedures including the deployment of one raft. For both 10-to-19- and 20-to-30-seat airplanes the annual incremental change in the number of airplanes times the applicable percentage of airplanes conducting extended overwater flights was zero for every year between 1996 and 2010. Accordingly, using this methodology, the cost will be zero.

The second method involved individually examining those air carriers that this provision affects. The FAA was able to identify those operators that conduct extended overwater operations with 10-to-30-seat airplanes. In every case, the airplanes involved were 10-to-19-seat types. Since the FAA is projecting only a modest increase in such airplanes through 1997 and an overall decline in 10-to-19-seat airplanes after 1997, it is highly unlikely that these operators will seek to increase their fleet size with a new airplane make and model currently not in its fleet that will require a ditching evacuation demonstration. Therefore, there will be no cost.

Both the operator and the FAA incur labor costs to complete a ditching demonstration. The actual demonstration takes about one hour to complete and requires two sets of crews. If an operator should need to conduct a ditching demonstration, the FAA estimates the cost for a 10-to-19 seat airplane at \$1,025 per demonstration.

Section 121.309—Medical Kits. This section will require affected commuters to have one medical kit on each 20-to-30-seat airplane for those operators. The FAA has decided to except 10-to-19-seat airplanes from this requirement due to their smaller size and the unlikelihood that a medical professional will be on board or a flight attendant to administer the use of the kit.

The FAA estimates that the 15-year cost for providing medical kits on the 20-to-30-seat airplanes operating under part 135 will be \$1.11 million (\$674,300, present value). The costs of providing medical kits are composed of acquisition (\$200 each) with a 60 percent spares reserve, installation, annual replacement (5 percent), annual maintenance (\$20 per kit), a weight penalty (7 pounds per unit), physician consultation expenses (\$500 per consultation), engineering and administrative costs, and record keeping (1 hour each time a kit is used at \$20.58 per hour).

Acquisition, replacement, and maintenance costs for kits are a function of the number of airplanes. In the first year of the rule, the bulk of the medical kits will be purchased; 443 kits will be needed for 277 airplanes, which takes into account the 60 percent spares reserve. Additional kits are purchased in the future as the airplane fleet increases to 556 airplanes in 2010, and to take into account a 5 percent annual replacement rate. Maintenance costs are calculated based on the number of units that were in use the previous year. The annual maintenance cost equals \$8,860 (\$20 per kit × 443 kits) for all kits (active and spares) in 1997.

Historical data on part 121 airplanes shows one medical emergency for every 124,647 passenger enplanements. The FAA assumes that the medical emergency rate is the same on 20-to-30-seat airplanes since all air carriers serve the same base population. The FAA estimates 70 medical emergencies in 1996 and 77 medical emergencies in 1997. A physician consultation will be required twice a year per air carrier to obtain certain contents, such as prescription drugs, for the medical kits at a cost of \$500 per consultation. In 1996, for the 20 projected air carriers, total consultations will total \$20,000. Record

Section 121.309—First Aid Kit. This section will require 10-to-19-seat airplanes to have at least one first aid kit. Currently, part 135 requires all airplanes with greater than 19 seats to have one kit, but there is no requirement for airplanes with 10 to 19 seats to have a kit.

The 15-year cost of this requirement will be \$371,400 (\$267,400, present value). The costs of providing first aid kits are composed of acquisition (\$70 each based on industry survey) with a 35 percent spares reserve, installation, annual replacement rate (5 percent of total), a weight penalty (4 pounds), engineering and administrative costs, and annual maintenance (\$7 per kit). Costs are a function of the 10-to-19-seat airplane count, which ranges from 673 in 1996 to 543 in 2010.

Section 121.309—Halon Fire Extinguisher. This section will require commuter operators of 10-to-30-seat airplanes to replace existing or install fire extinguishers (2 per 10-to-30-seat airplane (one in cabin and one in cockpit) with halon fire extinguishers. For this analysis, the FAA assumes that no part 135 airplanes are currently equipped with halon fire extinguishers. Since part 135 airplanes are already equipped with fire extinguishers prior to complying with part 121 standards, there will be no additional maintenance costs or weight penalties for this equipment.

The 15-year cost of this requirement is \$442,900 (\$346,500, present value). The cost of this provision will involve purchasing the requisite number of halon fire extinguishers per airplane in 1996, a 13 percent spares reserve ratio, and a 5 percent recharge rate per year after 1996, and up-front administrative costs.

Section 121.549—Flashlight. This section will require commuter operators of 20-to-30-seat airplanes to acquire two additional portable flashlights for use by the flight attendant and the copilot. This section will also require 10-to-19-seat airplanes to acquire one additional portable flashlight for use by the copilot. The analysis assumes that no part 135 airplanes with 10-to-30 seats are equipped with portable flashlights. Based on a recent survey, a portable flashlight costs \$5 and 2 D alkaline battery cells cost \$2.25.

The 15-year cost of this requirement will be \$134,400 (\$82,000, present value) broken out between \$56,500 for 10-to-19-seat airplanes and \$77,900 for 20-to-30-seat airplanes. The cost of this provision will involve purchasing the requisite number of flashlights for airplanes in 1996 and for airplanes added to the fleet through 2010, 10 percent spares, 5 percent replacement rate for every year after 1996, and a weight penalty (1 pound per flashlight). The analysis also assumes that all batteries will be replaced each year.

Section 121.313—Cockpit Key. This section will require all required crewmembers of affected operators to have access to a key for the locking cockpit door. This lock and key requirement will provide additional security for equipment and instruments in the cockpit. This requirement only applies to 20-to-30-seat airplanes. Airplanes with 10 to 19 seats are not required to have locking cockpit doors and will not be affected by this requirement. The rule will require 20-to-30-seat airplanes to retrofit the cockpit door with a lock and copy a key (\$1 per key). If an airplane does not have a lock, then the operators will be required to install one.

The 15-year cost is \$102,900 (\$78,500, present value). The highest yearly cost (\$51,245) will occur in 1996 when all of the 277 20-to-30-seat airplanes will have their cockpit doors retrofitted with locks and keys. Subsequent yearly costs are based on the annual increase in airplanes. Hence, in 1997, with 30 new airplanes, costs total \$5,550 (\$90 for new keys + \$5,460 for door retrofit costs).

Section 121.333—Portable Oxygen. This section will require airplanes that are certificated to fly above 25,000 feet to have a portable oxygen unit for each flight attendant. This requirement will only apply to commuter airplanes having more than 19 seats. This is because currently no 10-to-19-seat airplanes in commuter operations are certificated to fly above 25,000 feet.; also, 10-to-19-seat airplanes are not required to have flight attendants on board. Of the 249 20-to-30 seat airplanes in 1995, 146 fly over 25,000 feet.

The 15-year cost to equip all affected 20-to-30-seat part 135 airplanes will be \$472,900 (\$299,200, present value). Costs primarily are composed of \$400 per oxygen unit and weight penalty.

the FAA assumes that it costs \$1 to print and distribute each information card; a total of 3,353 cards will need to be produced in 1996.

Section 121.337—Protective Breathing Equipment (PBE) for the Cabin. This section requires a fire fighting PBE unit in the cabin on all 20-to-30-seat airplanes. The 15-year costs to supply all 20-to-30-seat airplanes total \$936,800 (\$595,600, present value). Costs are composed of PBE acquisition (\$400 per unit) with a 40 percent spares reserve ratio, installation (two hours of mechanic labor), engineering and administration costs, a 5 percent replacement rate per year, annual maintenance (\$40 per unit performed annually), and a weight penalty (5 pounds per unit, one unit per airplane).

Section 121.339—Life Rafts. This section requires all affected commuters conducting extended overwater operations to carry an additional life raft. The 15-year cost to equip the affected airplanes with an additional life raft will be \$265,100 (\$183,800, present value).

Section 121.340—Flotation Cushions and Life Vests. This section requires operators to provide a flotation cushion or life vest for each passenger seat on each airplane. In 1995, 10-to-19-seat airplanes average 18.66 seats per airplane and 20-to-30-seat airplanes average 28.99 seats per airplane. In this analysis, the FAA assumes that these ratios remain constant into the future.

The 15-year cost for providing flotation cushions or life vests on 10-to-30-seat airplanes will be \$7.50 million (\$5.53 million, present value) composed of \$5.03 million for 10-to-19-seat airplanes and \$2.47 million for 20-to-30-seat airplanes. The FAA assumes that 10-to-19-seat airplanes will not be able to install flotation cushions and hence will obtain life vests. In addition, even though some airplanes may have flotation cushions currently installed, the analysis assumes that all operators of 20-to-30-seat airplanes will replace existing seat cushions with flotation cushions. Data from industry sources place the same cost and weight on both items: \$50 and 2 pounds each. As the current seat cushions weigh the same amount, there will not be a weight penalty on the 20-to-30-seat airplanes. The total number of life vests and cushions per year is derived by multiplying the number of seats per airplane times the projected airplane count for the 10-to-19-seat and 20-to-30-seat airplane categories.

Section 121.391—Flight Attendants At The Gate. This section requires a flight attendant or other authorized person to stay on the airplane during intermediate stops while passengers are on board. The final rule adopts new section 121.393(a) for 10-to-19 seat airplanes to allow crewmembers (not necessarily a flight attendant) to stay near the airplane.

The only costs imposed on operators, as a result of this rule will be the training and documentation of authorized substitute personnel. Based on information received from FAA technical personnel, there will be no additional crewmember personnel costs for flight attendants or other crewmembers at the gate requirement due to the delay. In the NPRM, the FAA attributed additional compensation costs to operators in the event of a flight delay due to additional time spent by personnel to monitor passengers. FAA technical personnel state that delay costs are a result of the air carrier operations system and not the final rule. The air carrier operations system currently compensates any additional personnel costs due to delays.

Individual operators can comply by having a flight crewmember near the airplane (no cost) or by following one of three scenarios. Under the first scenario, operators could require all passengers to deplane during intermediate stops at the gate. Because deplaning will cause inconvenience to the passengers, air carriers will not use this option all the time. The FAA acknowledges that the deplanement of passengers under this scenario may impose some cost on passengers in the form of inconvenience; however, the FAA is unable to quantify this cost. Under the second scenario, operators can require either a flight attendant or pilot to remain on the airplane at intermediate stops as long as passengers are on board. Generally, the 20-to-30 seat airplanes will use a flight attendant, while 10-to-19 seat airplanes will use a pilot. Under the third scenario, operators can allow a trained, authorized person to stand in for the flight attendant or pilot when coverage is needed due to flight delay. Not all air carriers have authorized personnel at all intermediate stops; this will put a cap on the amount of time that this option will be used. This third scenario will require 24 hours of training for each authorized person (\$16.48 per

10-to-19-seat airplane cost and the 20-to-30-seat airplane category cost. The cost for the 10-to-19-seat category is derived by multiplying the total 15-year cost for training and documentation (\$67,500) by the expected probability of occurrence for the third scenario (20%) and then multiplying by the percentage of the fleet not operating in Alaska (91.9%). The cost for the 20-to-30-seat category is derived by multiplying the total 15-year cost for training and documentation (\$45,500) by the expected probability of occurrence for the third scenario (20%) and then multiplying by the percentage of the fleet not operating in Alaska (88.4%).

3. Certification

This section examines the costs of the rule with regards to airplane certification and performance. The total 15-year costs for certification are \$11.49 million with a present value of \$6.58 million.

Part 121 Subpart I: Performance Criteria. In the NPRM, the FAA had stated its belief that all of the commuter airplanes would be able to meet the part 121 performance standards. Consequently, the only compliance cost would be a manufacturer's one-time recertification cost of \$5,000 per airplane. However, after additional FAA analysis and input from several commenters, the FAA realizes that some of these airplanes are not able to meet the part 121 performance standards. Further, there will be an enormous economic impact if the proposed rule were to be adopted for all commuter airplanes.

Airplanes operating under part 121 face stricter performance requirements than those faced by airplanes operating under part 135. Part 135 performance requirements allow greater gross take-off weights for a given runway length and, conversely, allow a shorter runway for a given gross take-off weight than are allowed under part 121 for high altitude and/or high temperature conditions. However, as airplane models' performance capabilities differ, a change in performance requirements has a different effect across airplane models.

For example, the SFAR 41 and predecessor category commuter airplane performance capabilities are such that compliance with the part 121 performance requirements would require them to offload so many passengers or cargo as to become unprofitable to operate in scheduled passenger service. Due to the potential substantial economic loss and the potential safety reduction that would result when many of these airplane operators substitute airplanes with fewer than 10 passenger seats for these airplanes, the FAA decides that they will have 15 years to meet the part 121 performance requirements. By allowing these airplanes to remain in scheduled passenger service, their operators will have a sufficient amount of time to profitably exploit these airplanes, to plan their replacement, and to reduce the potential impact on the resale price in other uses of these airplanes. In addition, this 15-year period will provide an opportunity for manufacturers to develop future airplanes that may be better substitutes than the current available substitute airplane models. Further, this 15-year allowance will reduce the tendency for many of these operators to substitute smaller airplanes with less than 10 seats. These airplanes have an accident rate 14 times that of 10-to-15-seat commuter airplanes. Nevertheless, some of these airplanes will be phased out of scheduled passenger service before they would have been phased out if there were no commuter rule.

Currently, there are 112 pre-SFAR 41 commuter airplanes in part 135 scheduled service. As the FAA was unable to directly obtain the ages of these airplanes, the FAA used a data source to construct an approximate age-profile distribution for each of these airplane models and then assigned the appropriate number of airplanes to individual years based on those distributions. The FAA determines that, due to the increasing maintenance costs as airplanes age, the economic lifespan of these airplanes in scheduled passenger service is 30 years for the Twin Otter and 25 years for all of the other models. On that basis, the FAA projects that, in the absence of the commuter rule, 4 of these airplanes would still be in scheduled passenger service after 15 years.

Finally, these airplanes' market values will fall over time because the airplane ages because it takes an increasing level of expenditure on maintenance and replacement to keep the airplane airworthy for scheduled passenger service. Currently, the average market values for the pre-SFAR 41C airplanes are

SFAR 41 airplane models would also be affected by the part 121 performance criteria because these criteria are stricter than those in part 135. However, the part 121 performance requirements are very similar to the performance requirements in the ICAO Annex 8 flight operating requirements—the flight operating requirements under which these airplanes must fly in European scheduled service. As all of these airplanes are used in European scheduled service, they can comply with the part 121 performance requirements, but at a potential payload loss. There are some combinations of temperature, airport elevation (pressure altitude) and airport runway length that would require SFAR 41C airplanes either: (1) To unload one, two, or even three passengers from the currently permitted part 135 gross take-off weight; or (2) to operate out of airports with longer runway lengths in order to meet the ICAO Annex 8 performance requirements. For example, the minimum runway length for a Beech 1900-C airplane with a 16,600 lb. maximum takeoff weight (its maximum certificated load) from a pressure altitude of 1,000 ft. (a typical Midwestern airport) at 13 degrees Centigrade (standard day) would be 4,700 ft. under part 135 but would be 5,900 ft. under ICAO Annex 8. From another perspective, in order for a Beech 1900-C to operate under ICAO Annex 8 from an airport with a 4,700 ft. runway, the maximum allowable takeoff weight would be 14,900 lbs. in comparison to the 16,600 lbs. allowable under part 135. One commenter reports that these operating limitations may affect these SFAR 41 airplanes at as many as 65 airports at some point during the year. Nevertheless, for most of the temperatures, airport elevations (pressure altitude), runway lengths, and actual takeoff loads faced by these airplanes, the part 121 performance requirements, ICAO Annex 8 rules, and the part 135 performance requirements would have the same limiting effect on these airplanes' operations.

As a result, the FAA will allow SFAR 41 and predecessor category airplanes 15 years to comply with the part 121 performance requirements. With a 15-year time horizon, operators will be able to organize their schedules (for example, departing high temperature airports earlier in the morning), their airplane/airport pairings, etc. such that the costs in 15 years will be minimal.

Finally, the commuter category airplanes have the performance capability of meeting part 121 performance requirements. However, the manufacturers will need to document these capabilities for the approved flight manuals. This documentation will require about 20 hours of flight time at a per hour cost of \$1,500 (includes instrument calibration, engineering analysis, ground personnel review, etc.) for a total cost of \$30,000 per type certificate. In addition, there will be a one-time manufacturer's cost of \$5,000 per type certificate to obtain FAA approval for this flight manual revision. Thus, the one-time first-year cost for commuter category airplanes will be \$105,000.

Section 121.161(a)—Airplane Limitations: Type of Route. Section 121.161(a) requires that an adequate airport be within one hour flying time at single engine cruising speed along all points of the designated flight route. There is no similar requirement in part 135. This requirement is not expected to affect scheduled operators in the lower 48 states. In the Regulatory Evaluation for the NPRM, the FAA had estimated that 150 round-trip flights in Alaska would be affected annually, with reroutings adding one-half hour to each round-trip, for a total of 75 hours increased flying time. Applying an hourly variable operating cost for Alaskan air carrier commuter category airplanes of \$500, the FAA had estimated that annual operating costs would increase \$37,500. The 15-year total costs would be \$375,000 (\$265,000, present value). As no comments were made on the estimated costs of this provision, the FAA affirms its previous calculations. However, carrying them out for 15 years generates a cost of \$570,000 (\$346,000, present value).

Section 121.191—Engine Out En Route Net Flight Data. Although the FAA had not estimated a compliance cost for this provision in the Regulatory Evaluation for the NPRM, three commenters report that these data do not currently exist for 10-to-19-seat airplane models and there is a cost to developing these data. Based on those comments, the FAA determines that manufacturers' will incur a one-time first-year cost of \$1,900 per type certificated model, resulting in a one-time first-year compliance cost of \$24,700 for the 13 type-certificated airplanes.

Section 121.305(j)—Third Attitude Indicator. This section requires that a third attitude indicator be retrofitted on all affected airplanes (manufactured before March, 1997) within 15 years of the rule's

The FAA estimates that the retrofitting cost will be \$16,000 and will add 15 lbs. of weight to the airplane. To eliminate the potential for down time, operators will retrofit this device during one of the airplane's 200-hour scheduled checks. On that basis, the FAA expects that this device will be installed in half of the 58 SFAR 41C airplanes in scheduled passenger service during the 13th year and in the remaining half during the 14th year. On that basis, the FAA determines that the 15-year compliance cost will be \$319,000 (\$116,000, present value).

Section 121.308—Lavatory Fire Protection. This section requires each lavatory to have a smoke detector system connected to either: (1) a warning light in the flight deck; or (2) a warning light or an aural warning in the passenger cabin that can be readily detected by a flight attendant. Section 121.308(b) requires each lavatory to have a built-in automatic fire extinguisher in each of its disposal receptacles. These requirements are also found in section 25.854 but only for airplanes type certificated after 1991. There are no such provisions in part 135 or part 23.

On that basis, the FAA estimates that for the 20-to-30-seat airplanes, there will be a first-year compliance cost of \$78,000 and an annual cost in each succeeding year of \$45,000 to \$58,000. The 15-year total cost will be \$858,000 (\$519,000, present value). In the Regulatory Evaluation for the NPRM, the FAA had estimated a 10-year total cost of \$263,000 (\$206,000, present value).

Section 121.310(l)—Flight Attendant Flashlight Holder. This section requires an emergency flashlight holder be available to the flight attendant. A flashlight holder is needed to keep the flashlight available and within reach of the flight attendant seat. This provision requires retrofitting within one year of the effective date of the rule. The FAA had not estimated any compliance cost for the flashlight holder in the Regulatory Evaluation for the NPRM. However, after additional analysis, the FAA found that there will be a per airplane cost of \$50 for a retrofit and \$25 for an installation on a newly-manufactured airplane. It will increase the airplane's weight by 2 lbs. In addition, there will be a one-time engineering design, development, and FAA approval cost of \$250 for each type certificated model. As there are no flight attendants in 10-to-19-seat airplanes, no flight attendant flashlight will be required and there will be no compliance cost for those airplanes. For 20-to-30-seat airplanes, the first-year cost will be \$42,000 and the annual cost thereafter will be between \$2,000 and \$6,000. The 15-year total cost will be \$88,000 (\$68,000, present value).

Section 121.312(b)—Passenger Seat Cushion Fire Blocking Materials. This section requires that 10-to-30-seat airplane seat cushions comply with the fire protection standards in § 25.853(b) within 15 years. The proposed rule had allowed a two-year compliance period with an option for two additional years if there were demonstrated compliance difficulties.

In the Regulatory Evaluation for the NPRM, the FAA had assumed that this provision would affect only the 10-to-19-seat airplanes because the 20-to-30-seat airplanes are type-certificated under part 25, which requires fire-blocked seats for airplanes type-certificated after 1991. As those airplanes are used in both part 121 and part 135 service, the FAA believed that they have already been retrofitted and are being manufactured with fire blocking cushions. As there were no comments to the contrary, the FAA has retained that assumption.

In the Regulatory Evaluation for the NPRM for 10-to-19-seat airplanes, the FAA had estimated that it would cost \$20,000 for a retrofit, \$5,000 for installation on newly-manufactured airplanes, and fire blocking would add 2 lbs. per seat cushion. In addition, the FAA had believed that the incremental compliance costs from replacing a fire-blocked cushion with another fire-blocked cushion (due to normal wear and tear) would be only due to the difference in the costs of the fire-blocking material, which was estimated to be \$5,000. There would be no incremental labor costs because it would take as long to replace a fire-blocked cushion with a fire-blocked cushion as it would take to replace a non-fire-blocked cushion with a non-fire-blocked cushion. The FAA had also estimated that 10 percent of the 10-to-19-seat airplanes have fire blocked seats because they are offered as an option on currently manufactured models. Further, the FAA had estimated that it would cost \$50,000 for engineering, developing, testing, and documenting the results for FAA approval for those airplanes no longer in production. Finally,

normally reupholster their seat cushions every four years. Further, the FAA estimates that there will be no engineering costs for current commuter category airplanes because all of the manufacturers offer the fire blocked seat cushions as an option and the engineering and FAA-approval costs have already been incurred. However, the FAA revises its engineering costs for each out-of-production airplane model from \$10,000 to \$5,000 because there are a sufficient number of fabrics that have been approved so that each manufacturer will not have to completely reengineer its seats.

In response to the increase in time (from 4 years to 15 years) to comply with the rule, the FAA assumes that no airplane that will be withdrawn from scheduled-passenger service during those 15 years will be retrofitted with fire-blocking-seat-cushion materials. Further, an operator of an existing airplane that will be employed in scheduled passenger service beyond the 15-year period will wait until the last moment (13 to 14 years) before performing the retrofit. Based on industry statements, commuter-category airplanes are being built with the expectation of a 25-to-30-year lifespan. Also based on industry statements, the initial cost (plus one or two cushion reupholsteries) is less than or about the same as a retrofit 10 or fewer years in the future. The FAA anticipates that beginning in 5 years, operators will only purchase new airplanes that have factory-installed-fire-blocked seat cushions. Over time, the compliance costs will increase because a greater number of these airplanes will carry the extra 38 lbs. of weight. On that basis, the annual compliance costs will begin at \$150,000 in the sixth year after the effective date and increase to \$1.25 million by the 13th year. The 15-year total will be \$5.88 million (\$2.55 million, present value).

Section 121.317(b)—Fasten Seat Belt Lighted Sign. This section requires that there be a lighted "fasten seat belt" sign that can be controlled by the pilot. In the Regulatory Evaluation of the Proposed Rule, the FAA had not estimated any compliance costs because it was believed that affected airplanes had these lighted signs. Based primarily on information received from industry, the FAA estimates that the total 15-year cost for the 2 lb. device will be \$522,000 (\$269,000, present value).

Section 121.342—Pitot Heat Indication System. This section requires all affected airplanes, within 4 years of the rule's effective date, to have a pitot heat indication system that indicates to the flight crew whether or not the pitot heating system is operating. Section 23.1323 requires a pitot heat system for most commuter category airplanes, but there are no requirements for a heat indication system.

In the Regulatory Evaluation for the NPRM, the FAA estimated a per airplane cost of \$500 for a retrofit and \$250 for installation on a newly-manufactured airplane. The FAA did not estimate a weight penalty or costs for inspection, maintenance, and repair, but it had estimated a one-time manufacturer cost of \$10,000 for initial engineering design, testing, and documentation for FAA approval. On that basis, the FAA had estimated that the compliance cost during each of the first four years would be \$280,000 and \$10,000 per year thereafter. The 10-year total costs were estimated to be \$1.184 million or \$993,000, present value.

After additional analysis, the FAA is persuaded that its initial cost estimates need revision. Based on its analysis of the technology required to install these devices, the FAA determines that there is a per airplane cost of \$4,000 for a retrofit and \$2,000 for installation in a newly-manufactured airplane. However, the number of airplanes expected to be sold by the manufacturer who reported this device is standard equipment is subtracted from the expected number of newly-manufactured airplanes that will need to install this device. In addition, the associated equipment and wiring will add 5 lbs. to the airplane. Finally, there will be a \$10,000 one-time cost to engineer, design, test, and obtain FAA approval for the manufacturer of each type certificate.

On that basis, the annual costs in each of the first 4 years will be between \$515,000 and \$535,000 and the annual costs in each year thereafter will be between \$17,000 and \$23,000. The 15-year total costs will be \$2.29 million (\$1.87 million, present value).

Section 121.349(c)—Distance Measuring Equipment. This section requires at least one approved distance measuring equipment (DME) unit within 15 months of the final rule publication date for operations under VFR over routes not navigated by pilotage or for operations under IFR or over-the-top. The FAA

to-30-seat airplanes) and the 15-year-compliance cost is \$452,000 of which \$303,000 is for 10-to-19-seat airplanes and \$149,000 is for 20-to-30-seat airplanes (\$418,000, present value of which \$281,000 is for 10-to-19-seat airplanes and \$137,000 is for 20-to-30-seat airplanes).

4. Maintenance

The FAA estimates that over the 15-year period, the total cost of compliance for the relevant maintenance sections affected by the final rule will amount to an estimated \$18.18 million (\$11.92 million, present value). A discussion of the individual maintenance costs is presented below.

Section 121.361 Applicability. The final rule requires all affected commuter operators to have an airplane maintenance program that is appropriate for part 121 operations. All part 135 commuters currently operating under a part 135 continuous airworthiness maintenance program (CAMP) will be required to revise and possibly upgrade their programs in accordance with the new part 121 standards. Currently, commuter operators of airplane type-certificated with a passenger seating configuration of 10 seats or more operate under a CAMP as specified in section 135.411(a)(2). Most differences among the respective part 135 operators' CAMP arise from the varying complexity of the different airplanes, not solely from the type of operation. Therefore, the only new requirement will be to revise and possibly upgrade part 135 operators' existing CAMP's, not to develop entirely new maintenance programs.

The FAA estimates the one-time total compliance cost of the maintenance applicability section is \$104,000. Of this total, \$63,000 will be incurred by operators of 10-to-19-seat airplanes and \$41,000 will be borne by operators of 20-to-30-seat airplanes. The FAA assumes, based on information received from its technical personnel, that an average of 80 hours will be required of each affected operator's maintenance shop foreman to review an operators' CAMP to ensure compliance with the final rule. Assuming a loaded hourly wage of \$20.58 for a maintenance foreman, the one-time cost estimate for each operator will be approximately \$1,650 ($80 \times \20.58).

Section 121.377 Maintenance And Preventive Maintenance Personnel Duty Time Limitations. The final rule will require all commuter operators to adhere to the part 121 limitation of time that maintenance and preventive maintenance personnel can be required to remain on duty. Section 121.377 requires maintenance personnel to be relieved from duty for a period of at least 24 consecutive hours during any 7 consecutive days, or the equivalent thereof within any one calendar month. Maintenance and preventive maintenance personnel employed by part 135 operators have no such duty time limitation.

The FAA maintained in the NPRM that simple adjustments in work scheduling or duty requirements of maintenance personnel were on-going costs of doing business which would not be affected by the commuter rule. Furthermore, the FAA held that the existence of union work rules, Department of Labor regulations and the generally accepted notion of a "day of rest" would be sufficient to limit the amount of time that part 135 maintenance and preventive maintenance personnel remained on duty. The FAA, therefore, did not estimate any incremental costs associated with this section, and treated it as one not contributing to the total maintenance costs.

For the final rule, in considering the unique operating environment of Alaska, the FAA has determined that imposing the requirements of the maintenance and preventive-maintenance-personnel-duty-time limitations for part 121 operators onto part 135 operators will be a cost factor. The cost for the Alaskan operators is \$312,000 per year for all Alaskan 10-to-19-seat airplane operators. This cost estimate was provided by the Alaskan Air Carriers Association (AACA) and adopted by the FAA for this analysis. For the remaining operators, the annual cost is an estimated 80 hours per year at \$20.44 per hour for the maintenance foreman to perform the additional scheduling necessary to comply with the rule. The FAA estimates that a maintenance foreman will spend approximately 80 additional hours per year to meet the part 121 standards. Thus, the cost for non-Alaskan 10-to-19-seat operators in 1996 will be $23 \text{ operators} \times \$20.58 \times 80 \text{ hours}$ or \$37,870. For 20-to-30-seat operators, the cost in 1996 will be $25 \text{ operators} \times \$20.58 \times 80 \text{ hours}$ or \$41,000. The calculations would be the same in subsequent years.

Records, develops the transfer of records in more detail. It requires the certificate holder to transfer certain maintenance records to the purchaser, at the time of sale, in either plain language or coded form which provides for the preservation and retrieval of information. The section ensures that a new owner receives all records that are to be maintained by an operator as required under section 121.380.

In the NPRM, the FAA maintained that because section 135.439 was essentially identical to 121.380, there would be minimal new recordkeeping requirements imposed on part 135 operators and thus, assumed no incremental costs would result from changes to this section. The FAA also maintained that there would be no incremental cost impact resulting from changes to part 121.380a. Upon review of the proposal and subsequent comments received, the FAA has determined that the merging of the recordkeeping requirements of sections 121.380 and 135.439 brought on by the commuter rule will involve incremental administrative costs. The FAA therefore, has revised its NPRM position of no costs, and estimated the administrative costs for the new requirements incorporated in the changes to sections 121.380, 121.380a and 135.439.

The cost was derived from averaging the total recording cost for Alaskan commuter airplanes as provided by the AACA and applied to the total 10-to-19-seat airplane fleet. The AACA estimated the total first-year cost for Alaska operators to be \$156,000. This was divided by the number of 10-to-19-seat airplanes in Alaska (44) for an average cost of \$3,545 per airplane. This was then multiplied by the total number of airplanes in the 1996 U.S. fleet. In 1996, the number of airplanes will be 629 (673-44), 44, and 277 for 10-to-19-seat non-Alaska airplanes, 10-to-19-seat Alaska airplanes, and 20-to-30-seat airplanes respectively. For subsequent years, the additional reporting cost will be \$26,000 for the 10-to-19-seat airplanes in Alaska. The FAA divided that cost by the number of Alaskan airplanes (44) and then multiplied it by the total U.S. fleet. Thus, in 1997 the fleet count is 639 (683-44) 10-to-19-seat non-Alaska airplanes and 307 20-to-30-seat airplanes. The total costs for 1997 are \$26,000 for Alaska, \$377,590 ($\$26,000/44 \times 639$) for 10-to-19-seat non-Alaska, and \$181,409 ($\$26,000/44 \times 307$) for 20-to-30-seat airplanes. The same procedure is used for the remaining years. The total cost imposed on operators of part 135 airplanes due to the additional recordkeeping required to merge parts 121 and 135 maintenance recording requirements is approximately \$11.5 million (\$7.8 million, present value) for the 15-year period.

As a final point, this rule will impose costs on some part 121 operators by requiring them to maintain information on engine and propeller time in service as specified in section 135.439/121.380. The FAA concurs with a commenter's objection that for the few operators of older, part 121 propeller-driven airplanes, this will necessitate a substantial search-cost for historical records. In this instance the costs will not be borne by part 135 operators who, for the most part, utilize propeller-driven airplanes, but rather, by a few part 121 operators who do not utilize jet-driven airplanes. However, in the final rule, the FAA will make this requirement prospective only; those part 121 operators of propeller-driven airplanes will be required to maintain information on engine and propeller time in service only from the date of the first overhaul of the engine or propeller as applicable. Thus, this new requirement should only impose negligible costs on these part 121 operators.

5. Part 119

Part 119 is a new part that consolidates the certification and operations specifications requirements for persons who operate under parts 121 and 135. Most of these regulations are currently in SFAR 38-2; therefore, moving them to part 119 would not impose any additional cost. However, some sections currently under parts 121 and 135 would be moved to part 119. The costs imposed on affected operators by those sections are presented below. Over 15 years, the costs of these provisions are estimated to be \$3.36 million (\$2.30 million, present value).

Sections 119.33(c) and 121.163—Proving Tests. When an operator changes the type of operation it conducts or purchases an airplane that is new to a certain type of operation, that operator must undertake a proving test. A proving test generally consists of a non-passenger flight in which the operator proves that it is capable of safely conducting that type of operation or airplane. Going from a part 135 operation to a part 121 operation would be a change in operation and be subject to a proving

of hours is based on what that operator requests and on what the FAA will allow. However, based on the above sample, the FAA assumes for the purposes of this analysis that the average deviation will be down to a total of 15 hours.

The FAA recognizes that some operators who currently operate under a split certificate already have experience operating under part 121. Also, some part 135 operators already voluntarily comply with part 121 requirements for much of their operation. To the extent practicable, for these and possibly other operators, the FAA will not require a proving flight. However, some operators who will have to make significant changes to the operation as a result of the final rule will have to have a proving flight. The FAA anticipates that 50 percent of the estimated number of proving tests will not have to include a proving flight. The only cost to these operators will be the preparation and completion of the test for the dispatch system. For this analysis, the FAA assumes three days preparation for the manager, maintenance director, and secretary.

For those operators who must take the proving test, the cost will be the same three days preparation plus the 15 hours of flight time. The FAA estimates that the 15 hours of proving test flights will cost the operator approximately \$8,560 for a 20-to-30-seat airplane and \$7,000 for a 10-to-19-seat airplane. The difference in cost is due to the flight attendant being on board in the 20-to-30-seat airplanes.

The FAA estimates that there will be 90 proving tests necessary in 1996 to bring the existing fleet up to part 121 standards (assuming a proving test for each type of airplane for each part 135 carrier affected by the final rule.) The cost to the 60 part 135 operators in 1996 to complete the initial 90 proving tests would be approximately \$393,660 (\$367,900, present value). Of this cost, approximately \$128,300 would be incurred by operators with 20-to-30-seat airplanes and \$265,360 by operators with 10-to-19-seat airplanes.

The recurring costs would accrue over the next 15 years as affected operators conduct part 121 proving tests instead of part 135 proving tests. If the prescribed number of hours for part 135 and part 121 operators is 25 and 50 respectively, and the average deviation is 50 percent, then the difference in hours would be 13 $[(50-25) \times .5]$. Also, the FAA found from the survey of its records that, on average, operators conduct one proving test every four years, which equates to approximately 3 tests over the 15-year period.

The average number of operators in any given year over the next 15 years is 68. Based on this, the FAA will conduct approximately 14 $((68 \text{ operators} \times 3 \text{ tests})/15 \text{ years})$ proving tests annually: 8 for 10-to-19-seat airplanes and 6 for 20-to-30-seat airplanes. The FAA estimates that the increased cost of a proving test per part 135 operator would be \$6,050 for a 20-to-30-seat airplane and \$5,800 for a 10-to-19-seat airplane. For all affected operators, the final rule will impose approximately \$82,700 annually in additional costs for proving tests. Over the next 15 years, the total recurring cost of this provision would be \$1.24 million (\$0.75 million, present value).

Sections 119.65, 119.67, 119.69, and 119.71—Directors of Maintenance, Operations, and Safety; Chief Inspector; and Chief Pilot. The existing requirements for establishing and the eligibility of management personnel only apply to part 135 operators (excluding those that use only one pilot) and supplemental and commercial part 121 operators. The final rule will expand the applicability of the requirement for management positions to all part 121 operators as well. However, the FAA contends that part 121 operators, by the very nature and size of their operations, already have personnel in these positions (or the equivalent of these positions). Thus, there will be no cost to incorporate part 121 operators under these requirements.

There are three other potential cost areas for the management positions required in the final rule. First, is the new recency of experience for first time Directors of Operations and Maintenance. Second, is the new Director of Safety position for both part 121 and part 135 operators. Third is the Chief Inspector, which will be a new position for those part 135 commuters who upgrade to part 121.

Recency of Experience. The final rule will impose new recency of experience requirements for those Director of Maintenance and Operations candidates who will have that title for the first time. In addition

Director candidates will be affected by the final rule. However, this will have little if any effect on an operator's ability to find potential applicants to fill a Director position. This is for three reasons. First, the FAA contends that the number of potential candidates who do not meet the recency of experience requirement both now and in the future is small in relation to the total number of potential applicants for a Director position. Second, the FAA contends that the supply of existing personnel who would qualify for a Director position, plus those who are already a Director, is sufficient to keep wages from increasing as a result of the new qualification requirements. Further, the new requirements are not substantive enough to cause wages to increase. Third, operators can always request authorization from the FAA to hire an applicant who has comparable experience. For the initial upgrade to part 121, the FAA will approve these authorizations to the extent practicable. Thus, the FAA contends that the final rule will not impose a hardship on operators in having enough potential qualified applicants to fill the Director positions.

Director of Safety. This is a new position for part 121 but the FAA contends that this position will impose little if any additional cost to operators. The rationale for this assessment is based on two factors: (1) There are no eligibility requirements for the Director of Safety so virtually anyone can be designated as such; and (2) most operators already have a Director of Safety or the equivalent.

Chief Inspector. For existing part 135 commuter operators who will now operate under part 121, the position of Chief Inspector will be new. The FAA contends that this requirement will impose little if any additional cost. Many part 135 operators already have personnel that are the equivalent of a Chief Inspector. The operator may petition the Administrator to combine positions or request authorization to appoint someone who has comparable experience. For the initial upgrade to part 121, the FAA will consider these requests on a case-by-case basis.

On-Demand Operators Conducting Scheduled Operations. Under part 135, on-demand operators will be allowed to conduct up to four scheduled operations a week and still remain an on-demand operator. There is no such allowance in part 121. Thus, if a current on-demand operator conducts even one scheduled passenger flight with a 10-to-30-seat airplane, then that airplane must be upgraded to and the operation flown under part 121. The FAA has identified 5 airplanes in the current fleet with 10 to 19 seats that are used by on-demand operators in scheduled service. To bring these airplanes up to the part 121 standards will cost approximately \$1.73 million (\$1.18 million, present value). The components behind this estimate are provided below (explanations of these costs components are provided in their respective sections).

C. Benefits

The commuter segment of the U.S. airline industry is a vital and growing component of the nation's air transportation system. Commuter airplanes transport passengers between small communities and large hubs, and they play a vital role in transporting passengers over short distances, regardless of airport or community size. In many cases, they are a community's only convenient link to the rest of the nation's air transportation system.

Over the past 15 years, the size of the commuter industry has grown considerably. In 1993, for example, enplanements for commuter carriers grew by over 10 percent, far outpacing the one percent growth of enplanements on larger carriers. Forecasts of commuter industry activity give every indication that growth in this segment of the airline industry will continue to be robust during the next 15 years.

Many commuter carriers operate in partnership with large air carriers, providing transportation to and from hub locations that would be unprofitable with larger airplanes. These partnerships frequently operate within a seamless ticketing environment, in which the large carrier issues a ticket that often includes a trip segment on a commuter airplane. As these relationships between large carriers and commuter airlines continue to grow, it will become more common for the average long distance flyer to spend at least one flight segment on commuter airplanes.

The combined effect of a continuing growth in the commuter industry and the ever growing relationship between large carriers and their commuter counterparts will progressively blur the distinction between

transportation, or in other words, annual air carrier revenues. In 1994, the FAA estimated that amount to be \$88 billion. If public confidence wavers by only one percent, annual total air carrier revenues would be reduced by \$880 million, which is a minimum dollar estimate of the cost that would be experienced by the public in terms of being denied a fast, safe means of transportation.

Some studies have been done to measure the effect of change in public confidence. In 1987, the FAA studied the impact of terrorist acts on air travel on North Atlantic routes. The study investigated the relationship between the amount of media attention given to a specific terrorist act and reductions in air traffic. The study concluded that there was a measurable, short-term, carrier-specific correlation between the two. Following a well-publicized incident, ridership on the carrier experiencing the incident dropped by as much as 50 percent for a few months. In another instance, a major air carrier reported that two catastrophic accidents in 1994 resulted in a half-year-revenue loss to that carrier of \$150 million. These examples relate to carriers operating large airplanes, but they illustrate how the prevailing level of public confidence can affect the public use of air transportation.

It is clear that the American public demands a high degree of safety in air travel. This is manifested by the large amount of media attention given to the rare accidents that do occur, by the short term reductions in revenues carriers have experienced following accidents or acts of terrorism, and by the pressure placed on the FAA as the regulator of air safety to further reduce accident rates.

The FAA is confident that the final rule will further reduce air carrier accidents. The final rule will require dozens of changes to the way that smaller air carrier airplanes are built, maintained, and operated—all aimed at eliminating or at the very least minimizing the differences between small and large airplanes and the way they operate. Many of these changes result in small, unmeasurable safety improvements when examined in isolation, but taken together result in a measurable difference. That measurable difference ultimately is to bring commuter accident rates down to the very low level of that of the larger carriers. That rate is nearing the point of rare, random events.

What follows is a quantified analysis of the potential benefits of the final rule based on the assumption that it will reduce the number of commuter airplane accidents and (possibly mitigate the severity of those casualties in accidents that will occur). The analysis finds that measurable potential benefits substantially exceed the cost of the final rule, but the FAA believes that the larger but unquantifiable benefit is continued public confidence in air transportation.

Safety Benefits From Preventing Accidents. The intent of the Commuter Rule is to close, to the extent practicable, the accident rate gap between airplanes with 10 to 30 seats currently operating under part 135 and airplanes with 31 to 60 seats operating under part 121. The smaller “commuter-type” part 121 airplanes were used for comparison because their operations best resemble those of commuters than do larger part 121 airplanes. If the accident rate gap were completely closed, the FAA estimates that up to 67 accidents involving airplanes with 10 to 30 seats could be prevented from 1996 to 2010. This would generate a benefit of \$588 million, with a present value of \$350 million.

Typically, the FAA estimates aviation safety benefits based on rates of specific types of accidents that the rulemaking would prevent in the future. For this rulemaking, however, the FAA used a more broad-based accident rate. This approach was adopted because the scope of the various components of the rule covers such a wide range, and many of those components are interrelated.

To estimate the benefits of the rule, the FAA assembled a database of applicable part 121 and part 135 accidents between 1985 and 1994 using National Transportation Safety Board (NTSB) accident reports. These accidents were categorized by the passenger seating configuration of the airplanes involved—10 to 19, 20 to 30, and 31 to 60. The FAA then divided the annual number of accidents by the annual number of scheduled departures for each group to derive the annual accident rates. After calculating the 10-year historical average accident rates, the FAA took the difference in the accident rates between the part 135 airplanes and the part 121 airplanes. The difference in rates was then multiplied by the projected annual number of scheduled part 135 departures of airplanes with 10 to 19 seats and 20 to 30 seats from 1996 to 2010. Each step of this estimation procedure is described in detail below.

Annual Accident Rate. Based on the annual number of accidents from the database and the annual number of departures, the FAA estimated the accident rates for 10-to-30-seat airplanes operating under part 135 and 31-to-60-seat airplanes operating under part 121. From 1986 to 1994, the FAA found that part 135 airplanes with 10 to 19 seats were involved in accidents at a rate of .32 accidents per 100,000 departures and airplanes with 20 to 30 seats occurred at an average rate of .17 accidents per 100,000. Accidents involving part 121 airplanes with 31 to 60 seats had an average accident rate of .13 accidents per 100,000 departures.

The Average Cost of a Part 135 Accident. From the accident database discussed above, the FAA found that the average part 135 accident involving 10-to-19- and 20-to-30-seat airplanes cost \$6.3 million and \$24.6 million, respectively.

Estimating Potential Benefits. To estimate the benefit of closing the accident-rate gap between part 135 and part 121 airplanes, the FAA took the difference in average accident rates for 10-to-30-seat part 135 airplanes and 31-to-60-seat part 121 airplanes and multiplied them by the projected annual number of departures for 10-to-30-seat part 135 airplanes. This gives the projected annual number of accidents that the final rule could prevent. The FAA estimates that, from 1996 to 2010, 67 accidents could be prevented. Multiplying the number of potential accidents by the average cost of a part 135 accident (\$6.3 million for 10-to-19-seat airplanes or \$24.6 million for 20-to-30-seat airplanes) results in total potential benefits of \$588.2 million (\$350 million, present value).

The extent to which the accident rate gap closes will determine how much of the \$350 million in potential benefits is actually achieved. Based on the scope of the final rule, the FAA anticipates a significant closing of this gap.

D. Comparison of Costs and Benefits

Over the next 15 years, the Commuter Rule will impose total costs of \$117.80 million, with a present value of \$75.19 million. Of the total costs, \$80.36 million will be for airplanes with 10 to 19 seats and \$37.44 million will be for airplanes with 20 to 30 seats.

The benefit of the Commuter Rule is its contribution to closing the accident rate gap between part 121 and existing part 135 commuter operators. The FAA estimates that closing this gap will prevent 67 accidents over the 15 year period for a total present value benefit of \$350 million. It is not certain how much of the accident-rate gap the final rule will close. In view of this uncertainty, the FAA contends that the final rule will be cost-beneficial because it will have to be only 21 percent effective for costs to equal benefits. Given the broad scope of the rule, the FAA anticipates that, at a minimum, the rule will be this effective and more.

One additional observation needs to be made. The FAA considers the Commuter Rule to be complementary to the Air Carrier Training Program final rule and the Flight Crewmember Duty Period Limitations and Rest Requirements NPRM. A common goal of these three rulemaking actions is to prevent the 67 accidents that represent the accident-rate gap between part 135 commuters and part 121 operators.

In terms of the accident-rate gap, the benefits of the Commuter Rule are a part of this total benefit. However, it is not possible to allocate that benefit among the three rulemaking actions because it is difficult to determine which rulemaking action would prevent a given accident. For example, individual accidents may be prevented by any one or a combination of several factors such as:

- Preventing the occurrence of a problem with an airplane in the first place (Commuter rule);
- Providing more or better crew training to properly respond to the problem after it occurs (Air Carrier Training Program rule);
- Providing a dispatcher to help identify a problem before it becomes a potential accident (Commuter rule); and
- Ensuring pilots are not over-worked and tired (The Rest and Duty NPRM).

a small number of routes and airplanes. The only other concern with regard to international trade is airplane sales. There is the potential that increased equipment requirements and standards may limit the ability of commuter airplanes manufactured for the U.S. market to be resold to buyers in developing nations. Often, these countries do not have extensive safety requirements and may prefer less sophisticated airplanes.

International Routes. Most of the nation's 63 commuter airlines operate almost exclusively on domestic routes, with only limited international operations and no transoceanic routes. The majority of these international operations are across-the-border services between cities in the United States and locations in Canada and Mexico. There are relatively few carriers engaging in this kind of commuter service, with only a limited number of flights. Most of these services are between points in the border states, such as California, Arizona, Texas, Wisconsin, Michigan, Washington, and New York, flying to Mexican and Canadian cities. Although the final rule may require some foreign carriers to comply with its requirements, the primary effect will still be borne by the domestic air carrier market with a minimal affect on international trade.

Airplane Sales. Commuter airplanes are sold on a worldwide basis, and this creates the potential for international trade impacts. The final rule could affect the competitiveness of airplanes made for the U.S. market that are resold internationally. Under the final rule, commuter airplanes made for the American market would include new equipment and upgrades necessary to meet expanded safety requirements. These improvements will increase the cost and maintenance requirements for the airplane and could negatively affect their sales potential in foreign markets, particularly to customers in developing nations.

Many small air carriers in the developing world fly under significantly lower safety requirements than are required in the United States. Operators are generally not motivated to purchase airplanes that exceed their countries' minimum requirements. Further, these operators sometimes lack the facilities, equipment, and expertise that are necessary to keep sophisticated systems operational. Therefore, when purchasing either new or second-hand airplanes, operators tend to focus on airplanes that rely on a minimum of complex systems and equipment and that meet their basic requirements at the lowest cost.

Although sales of smaller airplanes to the developing countries represent an important component of the market, the largest market by far is in North America. In this case, since the airplanes will have to operate under the same standards as before their resale, there would be no impact. According to recent estimates, the worldwide market for commuter airplanes is estimated to be almost \$20 billion over the next 15 years, with a projected 59 percent of those sales occurring in North America. Sales to Europe account for approximately 20 percent of the total sales.

F. Regulatory Flexibility Determination Summary

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily or disproportionately burdened by Federal regulations. The RFA requires a Regulatory Flexibility Analysis if a final rule will have "a significant economic impact on a substantial number of small entities." The definitions of small entities and guidance material for making determinations required by the Regulatory Flexibility Act of 1980 are contained in the *Federal Register* [47 FR 32825, July 29, 1982]. Federal Aviation Administration (FAA) Order 2100.14A outlines FAA's procedures and criteria for implementing the RFA. With respect to the final rule, a "small entity" is defined as a commuter operator (with 10 to 30 seats) that owns, but does not necessarily operate nine or fewer airplanes. A "significant economic impact on a small entity" is defined as an annualized net compliance cost to a small scheduled commuter operator that is equal to or greater than \$67,000 (1994 dollars). The entire fleet of a small scheduled commuter operator has at least one airplane of seating capacity of 60 or fewer seats. The annualized net compliance cost to a small operator whose entire fleet has a seating capacity of over 60 seats is \$119,900 (1994 dollars). A substantial number of small entities is defined as a number that is 11 or more and that is more than one-third of small commuter operators subject to the final rule.

The total present value cost to small entities with 10-to-19-seat airplanes is \$16.7 million. The section on operations represents \$10.1 million or 64 percent of the total. The section on maintenance represents \$4.0 million or 24 percent of the total. The total present value cost to small entities with 20-to-30-seat airplanes is \$4.0 million. The section on operations represents \$2.9 million or 73 percent of the total. The section on part 119 represents \$416,000 or 10.4 percent of the total.

This determination shows that for an operator with only 10-to-19-seat airplanes, the average annualized cost will be \$61,900 and for an operator with 20-to-30-seat airplanes, the average annualized cost will be \$35,600. Given the threshold annualized cost of \$67,000 for a small commuter operator (with 60 or fewer seats), the FAA estimates that this final rule will not have a significant economic impact on a substantial number of small entities. A complete copy of the Regulatory Flexibility Determination is in the public docket.

Federalism Implications

The regulations do not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among various levels of government. Thus, in accordance with Executive Order 12612, it is determined that such a regulation does not have federalism implications warranting the preparation of a Federalism Assessment.

Paperwork Reduction Act

The information collection requirements associated with this rule have been approved by the Office of Management and Budget, until December 1998, in accordance with 44 U.S.C. Chapter 35 under OMB No. 2120-0593, TITLE: Commuter Operations and General Certification and Operations Requirements.

Conclusion

For the reasons set forth under the heading "Regulatory Analysis," the FAA has determined that this regulation: (1) Is a significant rule under Executive Order 12866; and (2) is a significant rule under Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). Also, for the reasons stated under the headings "Trade Impact Statement" and "Regulatory Flexibility Determination," the FAA certifies that the rule will not have a significant economic impact on a substantial number of small entities. A copy of the full regulatory evaluation is filed in the docket and may also be obtained by contacting the person listed under "FOR FURTHER INFORMATION CONTACT."

The Amendments

In consideration of the foregoing and under the authority of 49 U.S.C. 44702, the Federal Aviation Administration amends the Federal Aviation Regulations (14 CFR parts 91, 119, 121, 125, 127, and 135) effective January 19, 1996.

PART 127 IS REMOVED

